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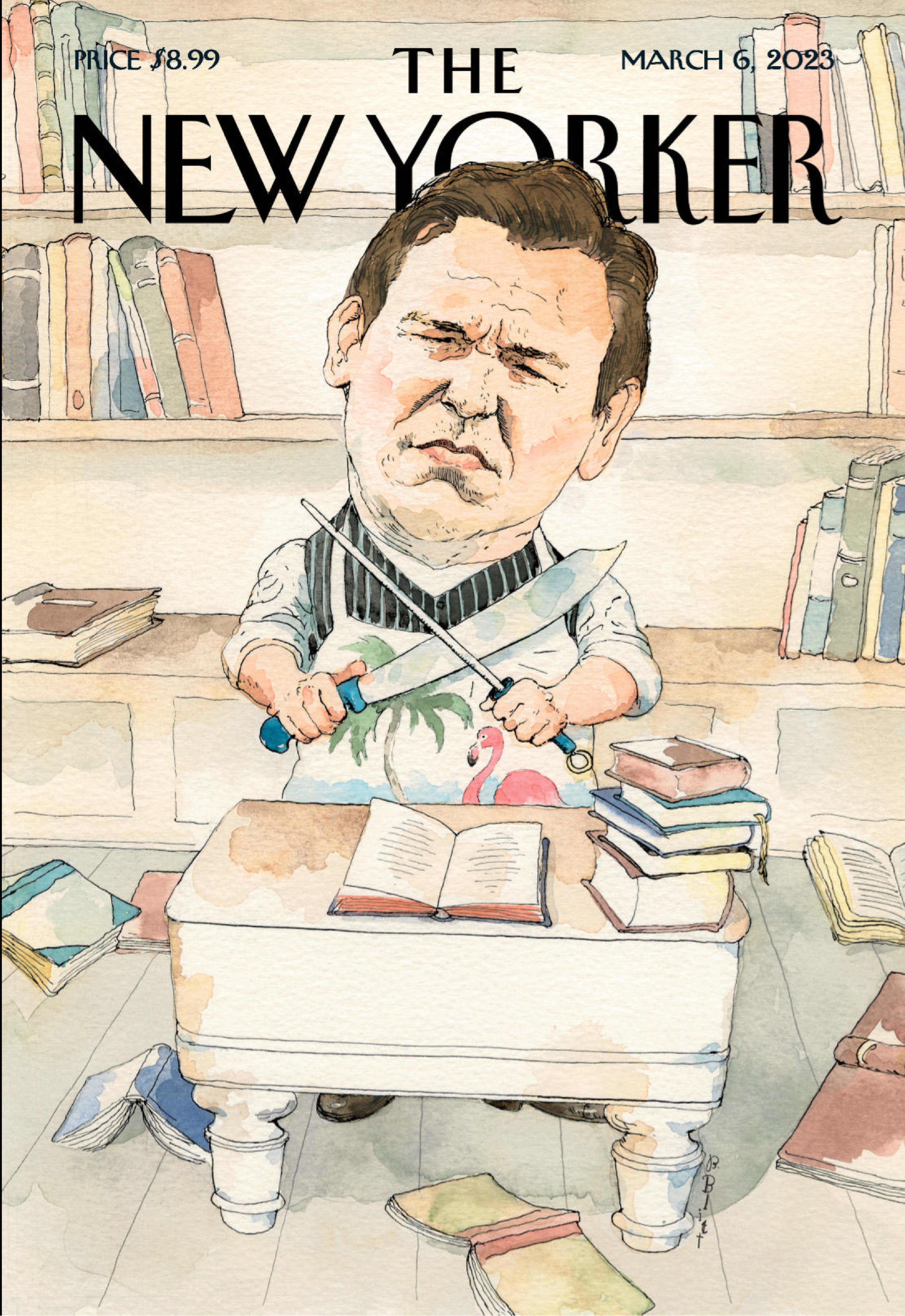

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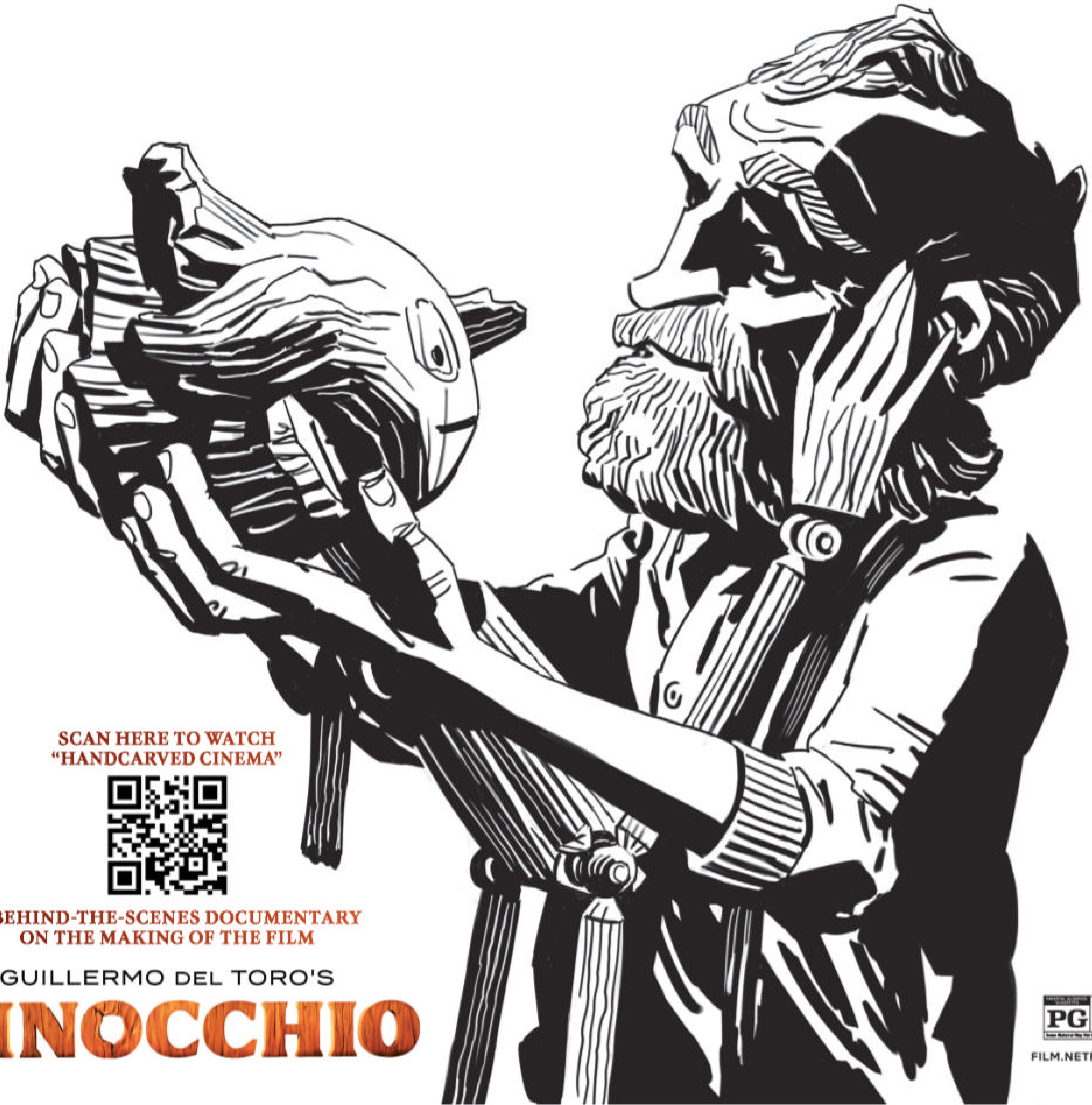

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CONTRIBUTORS

Ben Taub (*"The Price of Belief," p. 40*), a staff writer since 2017, won the 2020 Pulitzer Prize for feature writing.

Elizabeth Kolbert (*"Elemental Need," p. 24*) is a staff writer, and received the 2015 Pulitzer Prize for general nonfiction for "The Sixth Extinction." Her latest book is "Under a White Sky."

Dhruv Khullar (*"Talking to Ourselves," p. 16*), a contributing writer, is a physician and an assistant professor at Weill Cornell Medical College.

Amanda Petrusich (*Pop Music, p. 64*) is a staff writer and the author of "Do Not Sell at Any Price."

Lee Chang-dong (*Fiction, p. 54*) is a director, a screenwriter, and a novelist. He directed "Burning" and other highly acclaimed films.

Merve Emre (*Books, p. 67*), a contributing writer for the magazine, is working on a new book, "Love and Other Useless Pursuits." She is a writer-in-residence at Wesleyan University.

Nathan Heller (*"The End of the English Major," p. 28*), a staff writer since 2013, is at work on a book about the history of the Bay Area.

Antonia Hitchens (*The Talk of the Town, p. 14*) is a former member of the magazine's editorial staff. She has also written for the *Times* and *The Atlantic*, among other publications.

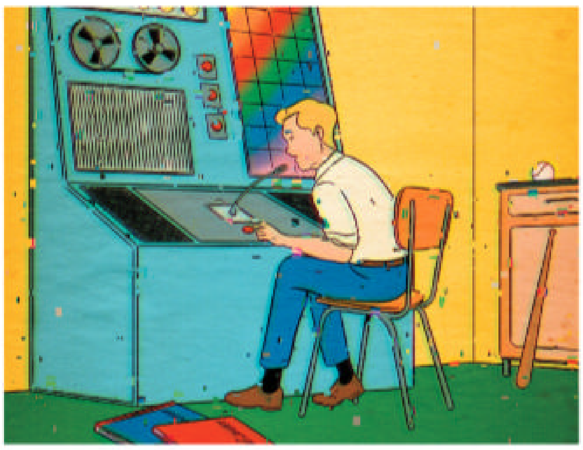
Thomas Mallon (*Books, p. 72*) has contributed to *The New Yorker* since 1997. His eleventh novel, "Up with the Sun," came out in February.

Eileen Myles (*Poem, p. 60*) will publish a new collection, "a 'Working Life,'" in April.

Bill Scheft (*Shouts & Murmurs, p. 23*), who has contributed to the magazine since 1998, is the author of five novels. He was a writer for David Letterman for more than twenty years.

Emily Flake (*Sketchpad, p. 15*), a *New Yorker* cartoonist, most recently published "That Was Awkward."

THIS WEEK ON NEWYORKER.COM



SECOND READ

David Owen on the book "Danny Dunn and the Homework Machine," which anticipated the rise of A.I.

THE NEW YORKER INTERVIEW

Doreen St. Félix on the actor Danielle Deadwyler's gravity-shifting, scene-stealing intensity.

LEFT: SIMON BAILLY; RIGHT: NYDIA BLAS

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THE MAIL

THE VALUE OF THE NEWS

In his piece on public trust in the news, Louis Menand corrects the claim by Kathryn J. McGarr, the author of "City of Newsmen," that the Washington *Post* did not hire its second Black reporter until 1972 (A Critic at Large, February 6th). Menand notes that, after the *Post* hired its first Black reporter, in the early fifties, two more—Dorothy Gilliam and Jack White—were hired in the sixties. But his correction is incomplete. It's true that in 1951 Simeon Booker became the *Post's* first Black reporter. He was followed by Luther Jackson, in 1959, and by Wallace Terry, in 1960. (Dorothy Gilliam was the next Black hire.) Other Black reporters who joined the staff in the sixties and early seventies include Jesse W. Lewis, Jr., Carl W. Sims, William Raspberry, Leon Dash, Hollie I. West, Robert C. Maynard, George Davis, Ivan Brandon, Michael B. Hodge, Bernadette Carey, Penny Mickelbury, Bobbi Bowman, Ronald A. Taylor, Herbert Denton, Joseph Whitaker, Ronald Smothers, and me.

By 1972, there were enough Black reporters for a group of us, known as the Metro Seven, to take the *Post* before the Equal Employment Opportunity Commission on a complaint of discrimination in job assignments and promotions. The E.E.O.C. eventually issued a report stating that the *Post* had likely engaged in discriminatory practices, and this finding motivated the paper to hire and promote more journalists of color.

Richard Prince
Alexandria, Va.

I appreciated Menand's discussion of the different positions that reporters and editors have taken on the matter of journalistic objectivity in the past century or so. It seems to me that there are many basic factors that inevitably present challenges to objectivity, even when journalists are not beholden to ideological goals, such as which issues are deemed worthy of coverage, how many follow-up stories a paper publishes, and where the story is printed on the page (or, in a magazine, how far into the book it appears). Although reporters and editors may be committed to treating their subjects fairly, their perspectives can also be colored by their personal experiences and cultural views. This may not prevent them from being fair, but it does suggest that journalistic objectivity is more elusive than press outlets often like to admit.

Allen J. Davis
Dublin, N.H.

Menand's article put me, a long-retired newspaper reporter and editor, in mind of the great difference between the state of print journalism in my time and the predicament it's in today. Newspapers used to be most people's main source of news; now many papers struggle to survive. (According to a report published in 2022 by researchers at Northwestern University's Medill School of Journalism, U.S. newspapers are shutting down at a rate of two per week. Pew Research Center reports that, in the past two decades, newspapers' advertising revenue—their primary source of profits throughout most of the twentieth century—has declined by about eighty per cent.) Even though the news that was printed in newspapers wasn't always reliable—owing to their owners' or editors' biases, or to the grandiose ambitions of journalists who embellished pieces to burnish their reputations—the work of the many honest newspaper reporters and editors nonetheless made the enterprise beneficial to the public. There are still wonderful newspapers with devoted, paying readers, but it is a shame to see so many people turn, for their news, to social media, blogs, and other sources without oversight—a shift that, as Menand's piece points out, has troubling ramifications for our social fabric.

Henry S. Chenault, Jr.
Mechanicsville, Va.

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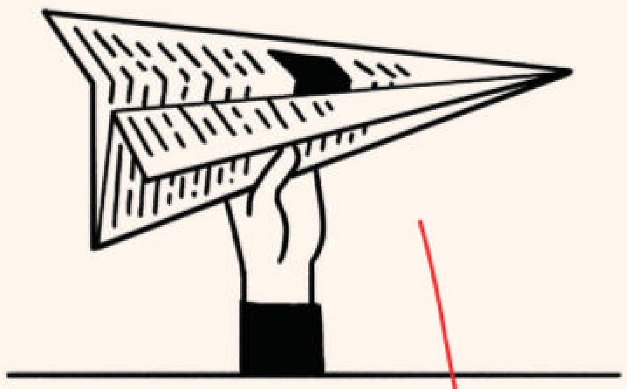

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GOINGS ON ABOUT TOWN

Part spoken-word performance, part concert, part postmodern portrait of the making of a one-man show, Arinzé Kene's **"Misty"** comes to the Shed, starting previews on March 3. As a Black Briton moving around London's transit system, the actor-playwright-rhapsode found inspiration in the idea of people as a virus; accompanied musically by Adrian McLeod and Shiloh Coke (and sometimes challenged by them), Kene explores ways that overfamiliar constructs of Blackness infect his artistic expression, and the contagious impacts of gentrification.

PHOTOGRAPH BY FELICITY McCABE

As ever, it's advisable to check in advance to confirm engagements.

DANCE

Batsheva Dance Company

In Ohad Naharin's "Hora," no one is hoisted in a chair. The 2009 work takes place in a green room with a long bench along the back wall. Rising off that bench, unabashed dancers erupt in unpredictable, idiosyncratic bursts of movement, thwarting the collective associations of the title. The presence of classical warhorses in Isao Tomita's electronic score—"L'Après-Midi d'un Faune," "Also Sprach Zarathustra," "Ride of the Valkyries"—gives the dance a mock-heroic tone, but the cumulative effect is, at times, genuinely epic.—*Brian Seibert (Joyce Theatre; Feb. 28-March 12.)*

Jody Oberfelder Projects

An elaborate, complicated series of operations that don't accomplish much in the end: Rube Goldberg machines have a lot in common with dances. That's the idea behind Oberfelder's "Rube G.—The Consequence of Action," premièring in a three-weekend run at the Agnes Varis Performing Arts Center. Four dancers entangle in chain reactions, and each performance of the bright, whimsical piece alters with input from the audience.—*B.S. (Gibney Dance Center; March 4-19.)*

THE THEATRE

Amani

Amani (Denise Manning) is an innocent, maturing into experience—onstage projections alert you to her age as she grows from childhood into her twenties—who talks cheerfully to her incarcerated father, Smith (Eden Marryshow), and dreams of her dead mother (Mars Rucker). Out of prison, Smith starts work on a rocket in their back yard, and the lonely family of two imagines the paradise that they'll find on the moon. A series of suitors to Amani (the playwright, a. k. payne, brings on a whole catalogue of losers before finally offering Amani a chance at queer happiness) chip away at the lunar-liberation plan, but these would-be Romeos (all played by Omari K. Chancellor) do other damage, too: the play stumbles whenever Amani's father leaves the action. At the Rattlestick (which co-produced, with National Black Theatre), the director Josiah Davis and the designer Maruti Evans turn the stage into an orange-lit attic of pleasures, crowded with plants and family photos; music, particularly remembered sounds of John Coltrane, presides via a live jazz ensemble. Once Amani turns away from her father toward romance, the play loses its hypnotic tempo, and, crucially, its humor. But at least the gifted Manning—always a standout in Off Broadway work—remains onstage for all of it, drinking up the spotlight, a jewel under glass.—*Helen Shaw (Rattlestick Theatre; through March 12.)*

Cornelia Street

To write "Cornelia Street," an homage to New Yorkers and to the Village, the British playwright Simon Stephens seems to have done very little research on New York or, really, on the way people interact, earn money, or speak. This bizarrely misfiring show, with thudding music and risible lyrics by Mark Eitzel, features Jacob (Norbert Leo Butz), a cook who works in a café, and his meagre clientele and staff, including a free-spirited older dame (Mary Beth Peil), a cabbie (George Abud), and Misty (Gizel Jiménez), Jacob's estranged stepdaughter. I tried to give the show the benefit of the doubt, despite its weird disregard for human behavior: Neil Pepe directed, Butz is flinging himself into the part, and Jiménez has the voice of an angry angel. But nearly every line is nonsense. Early in Act II, Jacob, who wants to class up the joint, says, proudly, "I started making the guacamole myself." Who doesn't? The various difficulties of making a musical—joining songs to action, exploring character and motivation, knocking our socks off musically—those things they haven't managed. But surely even the easily flustered Jacob could mash an avocado with a fork.—*H.S. (Reviewed in our issue of 2/27/23.) (Atlantic Stage 2; through March 5.)*

Endgame

In this Samuel Beckett play, from 1957, directed by Ciaran O'Reilly, Clov (Bill Irwin), who has a physical disability, is stuck in a dim, cluttered, gloomy, perhaps post-apocalyptic room. He works for Hamm (John Douglas Thompson), an imperious blind man who uses a kind of makeshift wheelchair. Hamm bosses Clov around incessantly, issuing contradictory orders at maximum volume, keeping him in perpetual transit, a purgatory of fetching and delivering. We never learn why Clov and Hamm are here, or precisely why Clov continues, day after day, to obey a tyrant who can't walk or see. Still less explicable is the fact that Hamm's legless parents, Nagg (Joe Grifasi) and Nell (Patrice Johnson Chevannes), are in metal trash cans onstage. This new production is dismaying in its simplicity but surprising in how many laughs it finds amid the gray. Thompson and Irwin play off each other like an existential vaudeville duo: Irwin's sublimely detailed and stylized physical performance makes Clov into a bitter fool, and, since Hamm can't leave his chair, Thompson's entire performance, by turns absurd and deeply moving, happens in his voice and face and hands—he bellows and wheedles and begs and makes ardent flourishes with his arms, savoring

CONTEMPORARY DANCE

ILLUSTRATION BY TOMOKO MIZUNO

Mostly, we associate the late Pina Bausch with works like "Café Müller" and her "Rite of Spring," dances that peek into the nightmarish corners of the human heart. But, in her later years, Bausch made a series of dances inspired by places where her company took up residence for months at a time. These were infused with an altogether different array of dreamlike imagery, born of the sense of estrangement we feel when we find ourselves in a place we don't know. (The dances tell us less about the places themselves.) "Água," which her company, **Tanztheater Wuppertal Pina Bausch,** brings to BAM's Howard Gilman Opera House, March 3-19, after an absence of six years, was created following a period spent in São Paolo, Brazil, in 2001. It is among Bausch's most sensual, fluid, and, yes, dreamy constructions. The main feeling transmitted is the pure joy of being alive, mixed with the pleasure of sensation.—*Marina Harss*

ROCK

The folk-rock ensemble **Big Thief** has a way of sounding concurrently grounded and unearthly. A Big Thief song is lucid, alchemical, alive, and typically delivered with a sense of wonder that these sacred sounds are even being aired. Playfulness enters the sprawling fray of the quartet's recent album, "Dragon New Warm Mountain I Believe in You," which, on one standout track ("Spud Infinity"), features the incessant *boing* of a jaw harp alongside lyrics about both the experience of existence and a potato. The musicians bring this cosmic profundity to Brooklyn Steel, on March 1, and to the glitzier Radio City Music Hall, on March 2. "Ether, time," Adrianne Lenker incants on the raggedly anthemic "Time Escaping," before proclaiming, with beatific awe, "It's music!"—*Jenn Pelly*

ILLUSTRATION BY HOLLY WARBURTON

iambs as he roves through Beckett's sentences.—*Vinson Cunningham (2/13 & 20/23) (Irish Rep; through April 9.)*

Pictures from Home

The playwright Sharr White set the difficulty high for his latest Broadway play: he adapted Larry Sultan's 1992 photo-memoir, a gorgeous (and groundbreaking) collage of portraits of his parents, taken in the course of nearly a decade in their Southern California home; stills from old home movies; and commentary, including some from his parents, who questioned his quasi-documentary project. Unfortunately, White and the show's director, Bartlett Sher, embraced shtick and sentiment, casting the beloved vaudevillian throwbacks Danny Burstein and the great Nathan Lane as son and father (Zoë Wanamaker is underused as the mother), even though we can see—thanks to enormous projections of the original photos—that the actors' instincts aren't in tune with the source. Sultan's complexity has been downgraded, by audience-courting ingratiation, to sugared family-comedy formula. The photographs also damn by way of comparison. Sultan's portraiture was a combination of candid and staged, exquisitely composed in a way that Sher's production is not, and the pictures glow with a baked Los Angeles palette: jacaranda light, golf-green carpeting, and the parents' burnished, teak-dark tans. Everything onstage looks cold by contrast.—*H.S. (2/27/23) (Studio 54; through April 30.)*

She's Got Harlem on Her Mind

Within Eulalie Spence's career in New York City public schools was a long tenure at Eastern District High, in Brooklyn, where she taught English, elocution, and drama. Among her students was a kid named Joseph Papp, who later called her "the most influential force in my life." What Joey may not have realized at the time was that Spence had been a major figure in the theatre world of the Harlem Renaissance, contributing to the community as an actor, director, and playwright. The performance history of the three short, literary-award-winning plays that make up this evening—"The Starter," "Hot Stuff," and "The Hunch"—is unclear, though it's quite certain that they've never before been mounted together. The director, Timothy Johnson, also composed the jazzy, wordless music that the company's eight vibrant, committed players sing as intro and entr'acte while they prepare the stage for each vignette. The plays, all set in Harlem, in 1927, and focussed on themes of money, marriage, and morality, conjure a set of fascinating sepia-toned images, sweetly and movingly evoking the laughs, loves, and language of that time and place.—*Ken Marks (Metropolitan Playhouse; through March 12.)*

MUSIC

Ben Allison, Ted Nash and Steve Cardenas

JAZZ When the bassist Ben Allison, the saxophonist and clarinet player Ted Nash, and the guitarist Steve Cardenas unite as a chamber-jazz trio, it's not about casual jamming among friends. These expert musicians have themes on their minds; in the past, they've paid tribute to Jim Hall and Jimmy Giuffre, and also Leonard Bernstein (with a luminous take on "West Side Story"). Last year, the discreet yet passionate unit set its sights on Carla Bley, the brilliant composer whose individualistic pieces have been grist for her own ensembles and those of other questing figures since the nineteen-sixties. "Healing Power—the Music of Carla Bley" finds the trio exploring the ingenious nooks and crannies of such gems as "King Korn," "Lawns," and the ever-durable "Ida Lupino."—*Steve Futterman (Mezzrow; March 1.)*

James Carter Band

JAZZ Eddie (Lockjaw) Davis was a beast of a tenor saxophonist, a bop stylist whose brawny tone, convulsive energy, and reservoir of licks laid down a gladiatorial challenge to any horn player who dared encounter him on a stage or in a recording studio. James Carter displays a similarly ruthless edge, his tenor—one of a contingent of wind instruments that he's mastered—ripping through chord changes with unabashed vigor and lusty abandon. It's a shame that he never got the chance to go head to head with Jaws before the elder musician died, in 1986. In this show, titled "Lookin' at the Lock," Carter tips his hat to his mighty predecessor as he leads a charging quintet featuring Satish Robertson on trumpet. Prepare for plenty of sweat, tears of exhilaration, and possibly blood.—*S.F. (Birdland; March 1-4.)*

J.I.D. and Smino

HIP-HOP In 2017, with his début album, "The Never Story," the Atlanta rapper J.I.D. popped up as the standout signee of J. Cole's upstart music imprint, Dreamville. He performs at a breakneck pace, with lyrics that unravel as they hurtle toward the listener. His most recent album, "The Forever Story," is his most definitive, full of meticulously sketched-out dramas from his upbringing, as the youngest of seven children. The rapper is joined here by Smino, a St. Louis artist with close ties to Chicago's contemporary R. & B. community. Unlike J.I.D., Smino is a rap bluesman, transmuting hip-hop and soul into a medley of smooth, singsong cadences; even his briskest verses feel robust and relaxed. Signed to the historic Motown Records, he embodies the label's evolution, as a rap-adjacent singer channelling the funk of his forerunners.—*Sheldon Pearce (Terminal 5; March 3-4.)*

Leyla McCalla

ROOTS For decades, Radio Haiti gave voice to its country's downtrodden, but it also made vicious enemies; in 2000, its owner was assassinated, and a few years later its airwaves went silent following further threats of violence. On her recent album, "Breaking the Thermometer," the cellist and singer Leyla McCalla uses the station's archives as a launchpad to explore Haitian history and her own family roots there. When initially commissioned to engage with the material, the New York-born McCalla fretted about whether hers was an appropriate voice to grapple with it. Yet this record flourishes as a very American work, as the musician—formerly of the erudite folk act Carolina Chocolate Drops—navigates the fog of her heritage from angles both scholarly and personal. At a set of family-focussed Lincoln Center performances, McCalla cracks a window onto Haitian music and politics. In the wrong hands, it could feel like a school field trip; in hers, there's zest.—*Jay Ruttenberg (Clark Studio Theatre; March 3-5.)*

Two Shell: "lil spirits"

ELECTRONIC The anonymous British production duo Two Shell makes music that emits a blithering whimsy. Like the beats of veteran "armchair techno" artists such as Aphex Twin and Luke Vibert, Two Shell's are a hair too jumpy to be considered straight-up house or techno or drum 'n' bass, and the samples are seemingly thrown into tumble dry. On "lil spirits," the pair's sophomore EP, the tunes can change up in a second;

take “mind_flip,” which reverses course with less than a minute to go, from a jittery but poky pulse to a speedy bump, accompanied by a stroboscopic and radically filtered disco guitar.—*Michaelangelo Matos (Streaming on select platforms.)*

Vienna Philharmonic

CLASSICAL The German conductor Christian Thielemann has spent his career at the helm of Europe’s great classical institutions, leading the Munich Philharmonic, the Bayreuth Festival, the Salzburg Easter Festival, and, currently, the Staatskapelle Dresden. A protégé of Herbert von Karajan, Thielemann has a whiff of the old guard about him, excelling in the august works that came out of the Austro-German tradition in the nineteenth and early twentieth centuries. His three-day engagement at Carnegie Hall, with the Vienna Philharmonic, elaborates upon his allegiance to that repertoire, with Richard Strauss’s pictorial “Eine Alpensinfonie” (March 3), Mendelssohn’s “Scottish” Symphony (March 4), and Bruckner’s Eighth Symphony (March 5)—which, at eighty minutes of grandeur and unrushed plangency, gets its own concert program.—*Oussama Zahr (Carnegie Hall; March 3-5.)*

ART

Brenda Goodman

Eleven abstractions, all painted last year by this New York artist, reflect nearly six decades of experimentation, dynamism, and emotional depth. There is an air of extemporaneous efficiency to Goodman’s work—every inch of her canvases is indispensable, put to good use compositionally while leveraging eccentric contrasts that evoke spontaneity. Shadowy, mosaic-like surfaces are interrupted by bright pastel passages in “Let It Shine” and “Morning Light”; sunlight seems to beam directly into the gallery through kite-shaped portals, as if through stained glass. Poignant references to the body (Goodman’s art has not always been completely abstract) appear in arching or slumping quasi-organic forms. In the pictures “Wallop” and “Above and Beyond,” reaching arms and bending spines, painted in striated grisaille, bring a melancholy presence to the bustle of shapes. In “Jump High,” areas of pixelated color are offset by splotchy brushwork, as a hard-edged black line maps out a large, but incomplete, rectangle—its missing side seems to signal the futility of either constraints or rules in Goodman’s unruly psychological-pictorial space.—*Johanna Fateman (Sikkema Jenkins & Co.; through March 11.)*

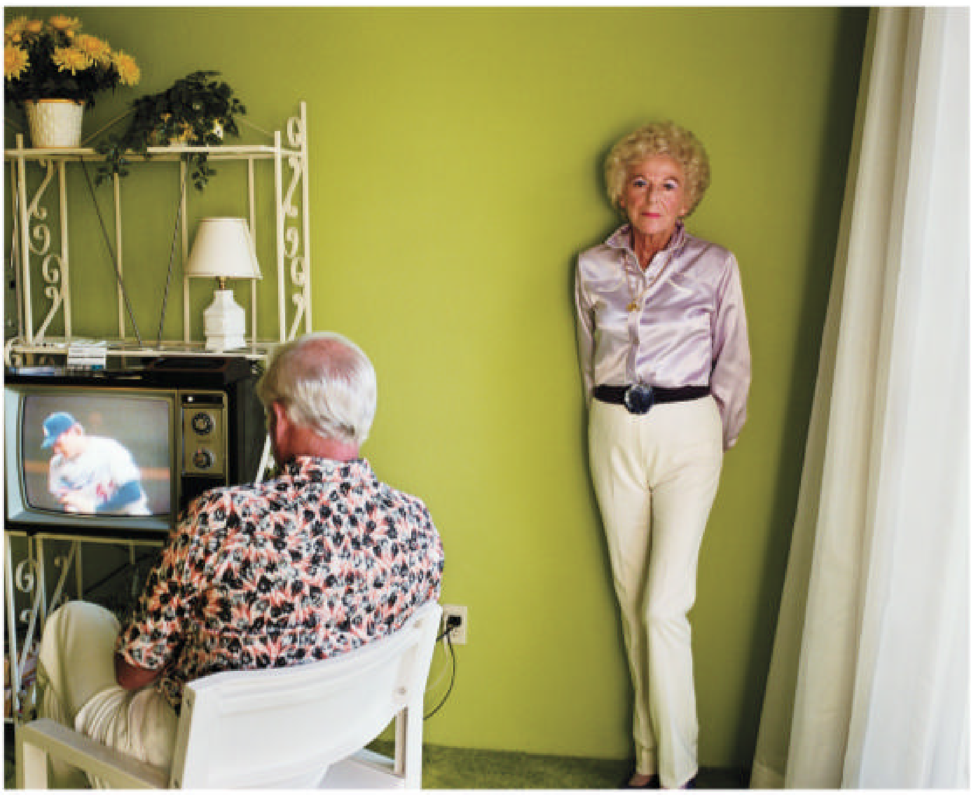
“Refik Anadol: Unsupervised”

One of the most crowd-pleasing—and controversial—exhibitions in New York City this winter is “Refik Anadol: Unsupervised,” a twenty-four-foot-square, constantly morphing abstraction, holding visitors rapt on the ground floor of MOMA. Anadol, a Turkish-born, L.A.-based digital whiz (whose past partners include NASA), gets top billing, but he has a crucial collaborator: A.I. is generating the imagery, in real time, using as its data set tens of thousands of pictures of works in the museum’s collection. Anadol has likened the process to painting with data, but don’t look for hybrids of, say, a Jackson Pollock and “Starry Night.” Instead, algorithms synthesize the archive into a hallucinatory primordial soup, served in three distinct formal styles. The most dramatic of these supplies cresting sloshes of rainbow-bright fluid with a disheartening amusement-park vibe. The other two modes—one distinguished by fine skeins of lines—are far subtler and offer the transfixing experience of watching an art work creating itself. Some of the critical backlash to the piece is driven by Anadol’s involvement in N.F.T.s (a portion of the profits from an N.F.T. series based on “Unsupervised” benefits the museum), but there is also an element of the gatekeeping condescension that has dogged every form of machine-assisted art. Consider that color photography was dismissed as crassly commercial until 1976, when MOMA became the first major museum to mount a show. Artists have been teaming up with computers since the mid-fifties; for the genre once known as “new media,” the spotlight is long overdue.—*Andrea K. Scott (Museum of Modern Art; through March 5.)*

Stella Waitzkin

Waitzkin, who died in 2003, was a student of both Hans Hoffmann and Willem de Kooning; she hung out at the Cedar Tavern, when it was the epicenter of the Abstract Expressionist scene. But she wasn’t a painter in the traditional sense, as the title of this compact exhibition—“These Books Are Paintings”—suggests. In a series of cast-resin sculptures, made between the seventies and the nineties, Waitzkin transformed books into haunted, semi-translucent talismans, filling her residence at the Chelsea Hotel (where she moved in 1969, at the age of forty-nine) with wall-size installations—libraries of brittle, tinted volumes. On view here are smaller examples of Waitzkin’s enchanting assemblages, which frequently incorporated found objects. (Visitors’ thoughts might drift to fossils fixed in amber.) One undated piece features a pigeon statuette: the bird leans forward

AT THE GALLERIES



LARRY SULTAN / COURTESY YANCEY RICHARDSON

In 1957, the whirlwind romance—and the fashion shoots—of Richard Avedon and Doe, the model who became his first wife, inspired the movie-musical “Funny Face.” Now another color-drenched, photo-based story of love (the complicated, filial kind) has landed on Broadway, in the play “Pictures from Home.” Its source is the iconic 1992 memoir of the same name, an amalgam of image and text, by the American photographer **Larry Sultan,** who spent nine years persuading his retirement-age parents, Irving and Jean, to sit for a series of cinematic portraits in and around their Palm Springs home, exposing family dynamics as a perpetual tug-of-war between fiction and truth, tension and tenderness. (Sultan died, in 2009, at the age of sixty-three.) Through April 8, ten framed pictures from the project (including “My Mother Posing,” from 1984, above) grace the walls of the Yancey Richardson gallery. One of them is a portrait of Irving perched, grim-faced, in a suit on a bed. “Any time you show that picture,” he once said to his son, “you tell people that that’s not me sitting on the bed looking all dressed up and nowhere to go, depressed. That’s you sitting on the bed, and I am happy to help you with the project, but let’s get things straight here.” An expanded edition of Sultan’s memoir, long out of print, was published in 2021. It opens, tellingly, with a sequence of home-movie stills, in which Larry appears as a little boy, playing on the lawn, jumping through a hoop held by his father.—*Andrea K. Scott* atop a stack of books, poised to take flight. Other sculptures form irregular, multicolored rows, inheriting alluring textures from their ridged, leather-bound sources. Painterly and expressive, Waitzkin's pieces have the mystique of unreadable texts.—*J.F. (Slag Gallery; through March 11.)*

MOVIES

Jethica

With its stark action and its clever techniques, the director Pete Ohs's off-kilter ghost story has an old-fashioned, downbeat allure; it plays like a modern update on a Hollywood B-movie. Much of the delight is in the sheer audacity of the plot: a young woman named Elena (Callie Hernandez) confesses to a killing, and most of the film is a flashback to the event and its aftermath. Hiding out in her late grandmother's trailer on a huge, empty spread of land in New Mexico, Elena has a chance encounter with Jessica (Ashley Denise Robinson), a friend from high school who is fleeing a stalker and who accepts Elena's invitation to move in with her. Yet the harassment resumes outside the trailer—the stalker (Will Madden) walks with a zombie-like torpor yet unleashes an incessant tirade of delusional pleas and demands. The strange doings, however, hold little mystery for Elena, who responds with a risky—and supernatural—scheme. Don't look for character development; the foregrounded world of taut, moody action features simple but astounding special effects and concludes with a wink that's as absurd as it is cinematically astute.—*Richard Brody (Streaming on Prime Video, Vudu, and other services.)*

The Station Agent

The writer and director Tom McCarthy turns his attention to a New Jersey backwater and comes up with something lyrical, taciturn, and stripped of sentimentality. Peter Dinklage plays Fin, a person with dwarfism who inherits a cabinlike home beside a railroad track in Morris County. Fin loves trains and not much else—hardly surprising, given that the world has shown him little more than a laugh and a sneer—and he is none too thrilled when his quiet space is invaded. Over time, though, he warms to the invaders: Joe (Bobby Cannavale), loud and lonely, who sells coffee and hot dogs from a neighboring van, and Olivia (Patricia Clarkson), a painter, still mourning the loss of a young son. The three of them fall in with one another, then fall out, then gradually fall back in; like some of the best short stories, the picture evades grandeur, mature enough to linger on what nearly happens. None of the central performers put a foot wrong; Dinklage excels as a burdened man who is angry, tired, and tough. Released in 2003.—*Anthony Lane (Reviewed in our issue of 10/6/03.) (Streaming on Paramount+, Prime Video, and other services.)*

A Touch of Sin

With a discerning eye for whiplash symbolism, the director Jia Zhangke sets four shocking crime-blotter episodes in China's Wild West landscape of pop-up cities and lays bare its psycho-political panorama of ruthlessness. In tales of a villager who challenges corrupt officials and predatory businessmen, a brazen drifter who abandons his overbearing family and stalks the new bourgeoisie, and a lonely woman pressed into prostitution at work, Jia sees new layers of outrages piling upon older, still unredressed injustices. In an unlivable tangle of despoiled nature, unwholesome shanties, and oppressive towers, the law—whether with a heavy hand or a cavalier absence—preserves cruel familial traditions even as families are wrenched apart by economic despair and raw indifference and a young man's romantic bildungsroman becomes a blanked-out cry into a futureless void. In Jia's methodically furious vision, the ambient violence of unchecked power erupts among the insulted and the injured with a horrific yet liberating sense of destruction and self-destruction. Released in 2013.—*R.B. (Streaming on Kino Now, Apple TV, Kanopy, and other services.)*

A Woman Under the Influence

The love and hate that bind men and women has rarely been evoked as plausibly or intensely as in this 1974 drama, directed by John Cassavetes. It stars his wife, Gena Rowlands, as Mabel, a California housewife whose loopy mannerisms and unstable behavior embarrass and infuriate her workingman husband, Nick (Peter Falk), who morphs into an ugly household martinet. Then, egged on by his mother (played by the director's real-life mother, Katherine Cassavetes), Nick has Mabel institutionalized. The initial poignancy and whimsy of Mabel's ways shift to a psychodramatic horror show, featuring some of the most fearsome domestic confrontations ever filmed. Rowlands's astounding and terrifying performance goes beyond dramatics: under the relentless gaze of Cassavetes's camera and the ferocious emotions of his script, her porcelain expressions shatter into a Picasso-like tangle of planes. She—together with her own mother, Lady, playing Mabel's mother—brings out the animal ferocity that links parents and children. In Cassavetes's world, the rough solidarity of husbands, forged through the rigors of work, keeps order—but at a terrible price.—*R.B. (Streaming on the Criterion Channel, Prime Video, HBO Max, and other services.)*

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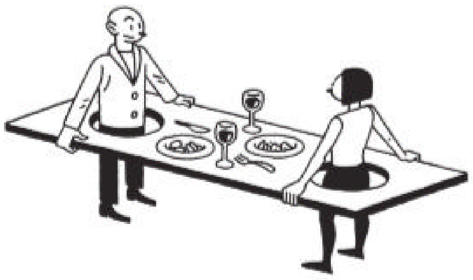
SCREENING AND STREAMING

SIMONA PAMPALLONA

Short films get scant attention apart from the Oscars, which include five nominees each in the Live Action, Documentary, and Animation categories. (*The New Yorker* has released five of the fifteen this year.) One of the best of the current batch is the live-action musical comedy **"Le Pupille"** ("The Pupils"), written and directed by Alice Rohrwacher. It's a historical Christmas tale, based loosely on a true story, that's set in a Catholic girls' orphanage in Italy during the Second World War. The protagonist is an independent-minded child named Serafina (Melissa Falasconi), who won't join the others in singing and dancing to a broadcast of a lightly risqué pop tune—and gets in worse trouble than they do. The action is centered on a seventy-egg zuppa inglese that's delivered as an offering by a frivolous aristocrat (Valeria Bruni Tedeschi). The movie packs a panoply of whimsical incidents and delightfully decorative images into its thirty-eight minutes, but its wide-ranging cast of characters—nuns and supplicants, laborers and clergymen—evoke a world of troubles, such as poverty, wartime fears, and religious dogmatism, alongside the children's vital energies and complex yearnings. The Oscar shorts are in theatrical release; "Le Pupille" is also streaming on Disney+.—*Richard Brody*

THE DOLAR SHOP



TABLES FOR TWO

Hot-Pot Marathon

Many years ago, a friend described me as "the least athletic person" he knew. I reject this designation on a number of grounds, not least the fact that he'd never seen me at my top sport: Chinese hot pot, a style of eating with ancient origins which involves a diner quick-cooking raw ingredients in a simmering pot of broth directly before her on the table. It may not burn many calories (certainly nowhere near the number consumed), but it requires deep focus, strategy, and coördination, and it gives me, when I really get going, a feeling akin to descriptions I've read of a euphoric runner's high.

These days, I'm in rare form. It's never been easier to find hot pot in New York—though I'll admit that I struggled, the other night, to locate Four Coconuts, a new restaurant in Flushing that specializes in a Hainanese-style chicken-coconut version. A group of delivery drivers, huddled with their e-bikes on the sidewalk, were unable to help, though they gamely took turns peering at my phone map and scratching their heads. If you venture to Four Coconuts (39-16 Prince St., Suite 209, Queens; broth and add-ins $4.95-$96.95), and you should: look up! In an alleyway between two malls, at the top of a staircase, you may be able to make out the potted palm trees by the door.

The tropical theme extends to a green-hued dining room, heady with the scent of coconut, where a round burner is built into each table. The most obvious order here is the Signature Bamboo Fungus Whole Chicken Soup, which gets your pot filled with chicken broth, plus chunks of fresh ginger, strips of coconut meat, fresh longan (a lychee-adjacent fruit), water chestnuts, and phallic, hollow cylinders of bamboo fungus. Added to this, tableside, is coconut water, poured from—what else?—four green coconuts. Once the mixture is bubbling, the final seasoning is tipped in: an entire raw chicken, cut into pink parts and marbled with vibrant yellow fat.

After a server dutifully skims foam off the liquid's surface, the ship is yours to steer. Every pot comes with lime wedges, minced garlic, and minced sand ginger, a super-floral variety, to further doctor the broth before you simmer the contents of an included vegetable basket (Napa cabbage, corn on the cob, enoki mushroom) and whatever ingredients you've selected from the digital menu. A tangle of handmade noodles; beautiful tofu-skin pouches, filled with fish paste and shrimp; paper-thin rib eye; slabs of congealed duck blood—all will bear the supremely satisfying flavor of the rich, fragrant liquid when you draw them out of the cloudy depths.

Meanwhile, in Manhattan, you can't miss the East Village location of the Dolar Shop—a Macau-inspired, Shanghai-based chain with thirty-five locations worldwide (including one in Flushing)—on the corner of East Eleventh Street and Third Avenue (broth and add-ins $5.99-$79.99). Here, the pots are individually sized and can be outfitted with an S-shaped divider, so that you can sample more than one broth: double your fun with half Exquisite Silver Soup, a milky-looking bath of pork and chicken broths bearing morsels of chicken thigh and pork tripe, and half crimson-hued Szechuan Hot & Spicy, pungent with peppercorns, garlic, and chilies. Both do magical things to crunchy, honeycombed segments of lotus root; scoops of gelatinous shrimp pâté, which firm up like meatballs in the heat; slippery little boiled quail eggs; and gorgeous, shell-on white shrimp.

At the Dolar Shop, the finish line is marked with complimentary cones of decent but unremarkable vanilla soft serve. At Four Coconuts, there is a wonderfully simple coconut pudding, firm yet luscious, served in a coconut shell, and a Korean-style *bingsu*, a pile of soft shaved ice soaked in strawberry milk and adorned with chocolate googly eyes and a mouth and horns made from Bugles—a fitting trophy for a hot-pot champion.

—*Hannah Goldfield*

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THE NEW YORKER STUDIOS

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THE TALK OF THE TOWN

COMMENT
COLD WAR 2.0

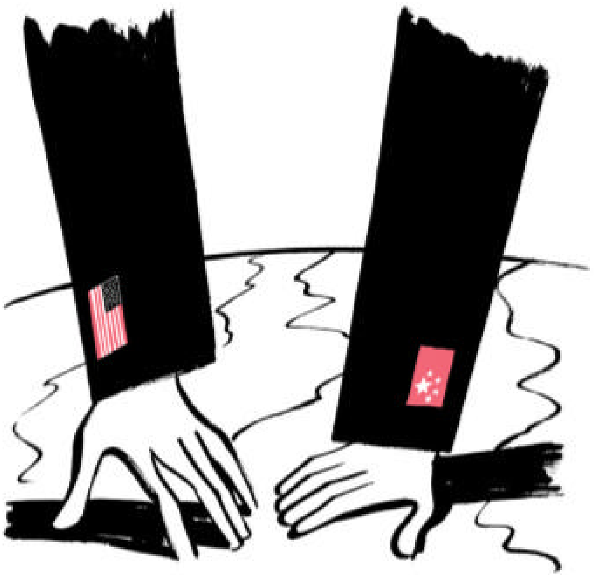
Joe Biden's national-security aides were recently at work on a secret mission—how to get the President safely in and out of Ukraine's capital, ahead of the anniversary of Russia's invasion—when they got word of a problem closer to home: a suspected Chinese spy balloon had been spotted in U.S. airspace. Secretary of State Antony Blinken, who was preparing to board a flight to Beijing, called off his trip and, on February 4th, as the world watched, an F-22 shot down the balloon off the coast of South Carolina, where it sank, like a strange emblem of this precarious moment.

The United States shot down three more floating objects in the following days, then announced that there was no sign that any of them were connected to China. By that point, though, the machinery of confrontation was in full gear. In a radio interview, Senator Kirsten Gillibrand, Democrat of New York, speculated that the balloon was "a test to see what the U.S. would do," and ventured that China's leader, Xi Jinping, is "bent on a world war." Nikki Haley, a Republican contender for the Presidency in 2024, signalled her backing for something close to regime change, telling supporters that "Communist China will end up on the ash heap of history." China cast the uproar as a sign of America's decline. Its most senior diplomat, Wang Yi, described the balloon shoot-down as "borderline hysterical, and an utter misuse of military force."

ILLUSTRATIONS BY JOÃO FAZENDA

Not since the Berlin Wall fell has the world been cleaved so deeply by the kind of conflict that John F. Kennedy called a "long, twilight struggle" over the shape of its future. In broad terms, it is a schism between the realms of democracy and autocracy, pitting the U.S. and its allies against Russia and its dominant partner, China. Officials on all sides, though, downplay analogies to the past. That's for the best; banal triumphalism about the Cold War tends to ignore both how close we came to nuclear catastrophe—a spectre that Putin revived last week, when he suspended Russia's last arms-control deal with the U.S.—and the toll of the proxy wars fought around the globe, which the historian Paul Chamberlin estimates killed more than twenty million people.

The blocs in this new cold war are hardening. Within days of Vladimir Putin's invasion, Germany announced a "turning point" in its long-standing relationship with Russia, which would alter its military and energy policies. A reinvigorated NATO, at a summit last summer, to which leaders of Japan, South Korea, Australia, and New Zealand were invited, voiced unprecedented concern about China's ambitions. Meanwhile, the Biden Administration has strengthened military ties with Australia, Japan, and India; most recently, it announced plans to expand military activities in the Philippines, to bolster its ability to defend Taiwan.



But the war has also delineated the limits of U.S. influence. Despite Russia's brutality in Ukraine, it has maintained, or reinforced, ties with a host of nations. India, which is working with the U.S. to counter China, nevertheless relies heavily on weapons and oil from Russia, and has quintupled trade with it. Russia's foreign minister, Sergey Lavrov, recently visited nine countries in the Middle East and Africa. But none are as vital to Russia as China: though the two nations have little fellow-feeling, Xi and Putin have forged a circumstantial bond out of hostility to Washington's dominance. Beijing has aided Moscow by buying Russian oil and selling it commercial drones and microchips, and by abstaining from efforts in the United Nations to condemn the invasion. Xi's government calls itself a neutral party, but, on Friday, it proposed a ceasefire in terms that echo many of Russia's claims.

In the run-up to the anniversary, the Biden Administration accused China of weighing whether to supply weapons to support Russia's war—a charge it denied. If China were to provide arms, it would mark a momentous turn away from the international system, suggesting that Xi feels he cannot afford to let Putin fail, regardless of the consequences for Beijing's fragile standing in Europe. It would be a calculation recalling an earlier moment of anxiety, shortly before the Soviet collapse, when the Chinese leader Deng Xiaoping said, "The problem now is not whether the banner of the Soviet Union will fall . . . but whether the banner of China will fall."

For now, the prospects for preventing a cold war from becoming a hot one rest less on grand strategies than on urgent mechanics. Following the balloon incident, Defense Secretary Lloyd Austin tried calling Wei Fenghe, China's defense minister, and was rebuffed. In December, the U.S. said that a Chinese fighter jet had come within twenty feet of an American warplane in international airspace over the South China Sea. The U.S. offered to hold "de-confliction" talks, but Beijing declined. Before the balloon got in the way, Blinken had been expected to use his trip to re-start negotiations over the handling of those types of encounters—establishing "guardrails" that might prevent an accident from escalating into a calamity.

All too often, the onset of a great-power standoff inspires more attention to weapons than to communications. George F. Kennan, the architect of America's "containment" policy toward the Soviets, often lamented that his theory was used to justify a military buildup rather than a sustained commitment to political and economic diplomacy. In a new biography, the historian Frank Costigliola writes that, after Kennan "spent the four years from 1944 to 1948 promoting the Cold War, he devoted the subsequent forty to undoing what he and others had wrought." The Soviet example holds only limited lessons for today, though, because of China's economic scale. Toward the end of the Cold War, U.S. trade with the Soviet Union was about two billion dollars a year; U.S. trade with China is now nearly two billion dollars a day.

Washington should fiercely oppose Beijing's abuse of human rights, its militarizing of the South China Sea, and its threats to Taiwan. But, if we are to limit the worst risks of a cold war, the U.S. should also prepare for what the Nixon Administration called détente—the policy, adopted in the late nineteen-sixties, with regard to the Soviets, that Henry Kissinger later summarized as "both deterrence and coexistence, both containment and an effort to relax tensions."

Kennan, to his final days, warned about the seductive logic of wars, both cold and hot. In 2002, at the age of ninety-eight, he campaigned against the march to war in Iraq, arguing that history suggests "you might start a war with certain things on your mind" but often end up "fighting for entirely different things that you had never thought of before."

—*Evan Osnos*

RECUPERATION DEPT.
NICE THINGS

BEAUTY SHOPPE
SPECIAL TODAY

A few weeks ago, the British band Dry Cleaning finished off a monthlong American swing with a gingery performance in Red Hook. They were flying home to London the next evening for a week of rest—and then six more weeks on the road. That night, after coming offstage, the band members headed to a bar in Bushwick, where Lewis Maynard, the bass player, eventually passed out atop a picnic table outside, sprawled on his back, legs dangling off the end. Spent. A bar patron came out and asked, "Can I do some blow off that guy's navel?"

"I have no idea what happened last night," Maynard said the next afternoon. He has long black hair and a long beard, and wore Ray-Bans and a cheetah-print cardigan. He and the others were settling in at a nail salon in Carroll Gardens. They had decided to salve their tour wounds, prior to their flight, with a little self-care. Manipedis for all. The only one of them to have ever before undergone such an indulgence was Florence Shaw, the lyricist and lead singer—and the only girl.

After a pedicure in Philadelphia, she'd performed a show with her feet swaddled in cling wrap beneath her socks. "And in Phoenix I had to have my fingernails taken off," she said. "They were getting caught in my hair. Blood was drawn."

The four members of Dry Cleaning sat in a row, reclining in their pedi-thrones, with their pant legs rolled up and their bare feet in and out of basins. The technicians attending to them were Maggie, Elsi, Judy, and May. The other band members were Nick Buxton, the drummer, and Tom Dowse, the guitarist. They are all in their mid-thirties. Dowse's calves were heavily inked. He'd done many of the tattoos himself, including one that read "Pg. 99," for a hardcore band from Virginia.

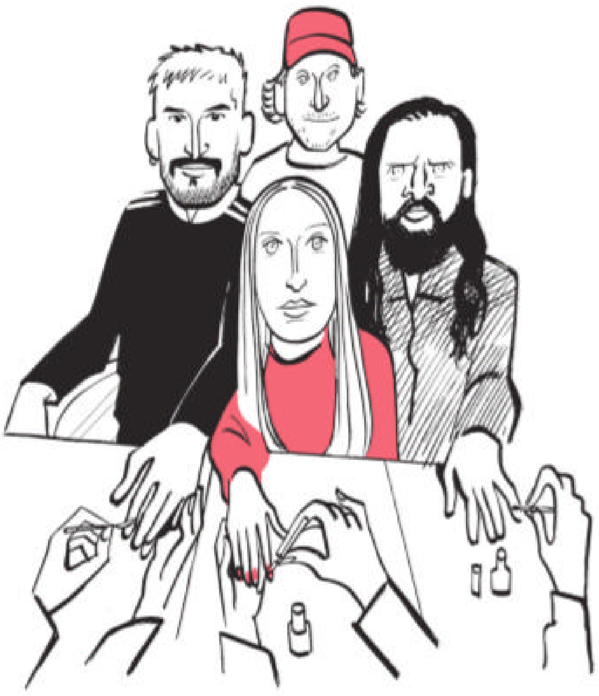
Dowse said, "When you're touring, you just go to record shops and buy shirts and CDs and whatnot. You start to realize you can use that money for a massage and get more out of it. Touring is very physically hostile."

"Dude, the chair massages your back!" Buxton said.

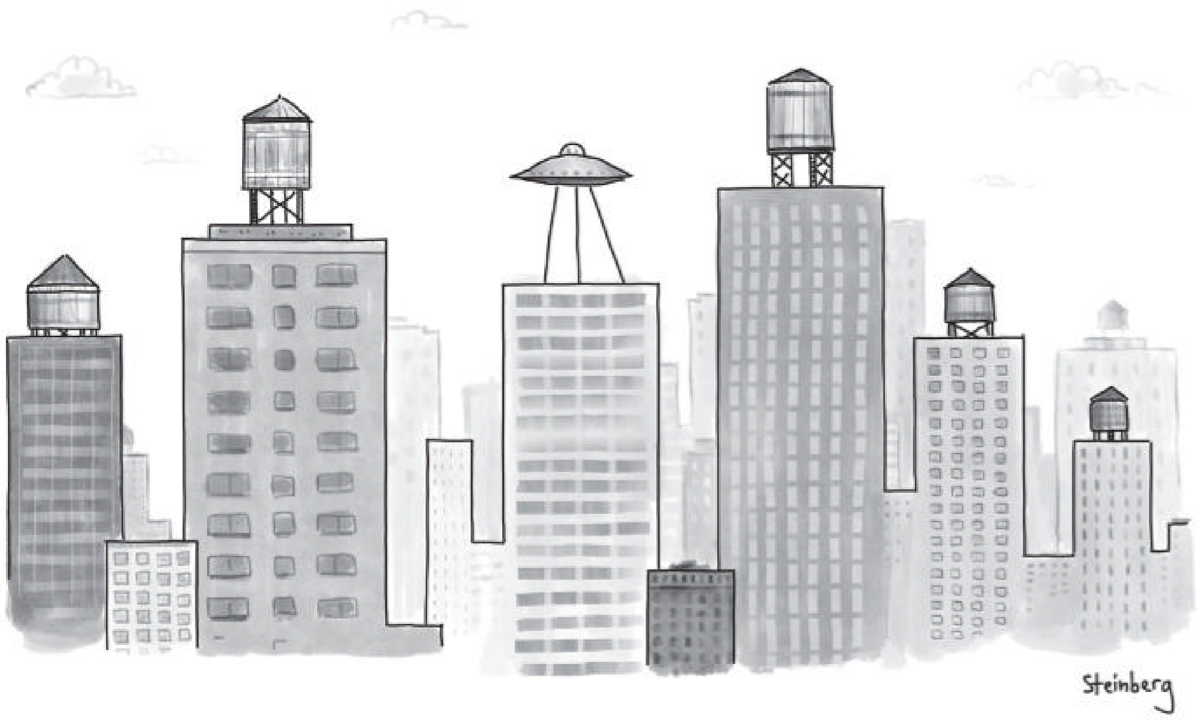
Shaw: "Sorry, I'm vibrating at the moment."

Dowse: "It's probably an outdated male trope, but I didn't grow up doing nice things for myself, you know what I mean?"

Buxton: "You've got to pamper yourself. It's worth spending money on nice things. I've started spending quite a bit of money on shower gel. I spent an insane amount on a suitcase. Zero regrets. I was talking with Lewis about



Dry Cleaning



"Well, they haven't noticed us . . . yet."

underwear. You have to value yourself in the underwear department. It's worth it to not feel like crap all the time."

Shaw: "So much of this job involves your body. Everything comes out of you, out of your body."

The technicians massaged the players' soles and calves. Soap and lotion, water and towel.

"I'm definitely going to get this at home from now on," Dowse said. "Every day."

The band's tour manager, Carlijne Schreijer, came out of a back room, having just treated herself to a Brazilian wax. Maynard called out, "How you feelin', Carly?"

"Ten pounds lighter," she said.

The band members moved together to the manicure tables and presented their gear-battered hands. "I like the word 'mitts,'" Shaw said. "My mum used to always say 'grubby mitts.'" Dressed in a pink turtleneck sweatshirt and baggy, faded jeans, she sat with her painted toenails drying beneath a fan. Like the Statue of Liberty, she has the so-called Greek foot: the second toe slightly longer than the big toe.

Pitchfork recently described Shaw's speak-singing voice as "achromatic" and the music that accompanies it as "rutilant." Here in the salon, her remarks were backed not by shimmering guitar but by the snip-snip-snip of the nail trimmers and the intramanual chatter of Maggie, Elsi, Judy, and May. Whitney Houston on the radio, Guy Fieri on the TV.

"As soon as we started doing the band full time, I worried I'd feel bereft using words a lot of the time," Shaw said. "Pictures were always my thing. But I feel pretty fulfilled."

Before the three boys persuaded Shaw to be their front woman, their composer and deliverer of words, she was a college illustration teacher. (She'd met Dowse years before, when they were grad students at the Royal College of Art.) She'd had no ambitions of being in a band, or of writing. She sometimes assembles her lyrics out of observations, non sequiturs, slogans, and scraps of dialogue that she comes across in the wild and collects on her Notes app or in a sketchbook.

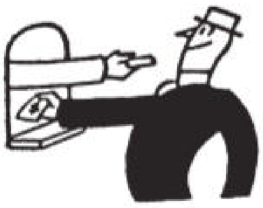
"I listen to people talking," she said. "I overhear things. In restaurants, I find it hard to concentrate on one other person. It can be a bit of an affliction."

Dowse, to her left, requested black polish for his fingernails. Schreijer was ordering lunch and juice. Maynard, off his feed, stepped outside for a breather.

Shaw went on, "I was never a big reader. The thing that sometimes disturbs me about words is that a page full of words, you can't just give it a glance and get it. I feel a little locked out of it. Whereas with a picture it's immediate." Songs, maybe, are a bit in between.

—*Nick Paumgarten*

THE PICTURES
ENTREPRENEUR



Stacy Spikes, the C.E.O. of MoviePass, was buying popcorn at the Angelika Film Center the other day, before a screening of Darren Aronofsky's "The Whale."

"I think it's incredible," Spikes said of the film, which he'd seen already. "You don't see overweight people, you don't see addiction, you don't see a broken heart the same way as you did before." He filled a cup with Diet Coke before making his way to Theatre 1, fourth row center. (He always studies the map before picking a seat.)

Spikes is a movie nerd who has dedicated a chunk of his career to helping theatres survive the age of smartphones and streaming. In 2011, he co-founded MoviePass, a service that let users pay a flat monthly fee to see up to one movie a day in theatres; he pitched it as "Netflix for movie theatres." The launch was rocky, as several big chains announced that they wouldn't participate. (AMC Theatres called MoviePass "a small fringe player" and threatened to sue.) The company eventually reached around three million subscribers, but Spikes had trouble raising capital to keep it going, and in 2017 it was taken over by the now defunct data-analytics firm Helios and Matheson. Soon, after Spikes criticized some of the firm's business decisions, including the adoption of the unsustainably low monthly subscription price of $9.95, he was pushed out, and MoviePass went under. In 2021, Spikes bought the company back out of bankruptcy; he relaunched it last fall.

He has probably spent hundreds of hours in movie theatres around New York City, and he believes that researchers should use movies to train artificial-intelligence algorithms to understand humans. "If aliens came down from another planet, and they wanted to get to know us, they should go to the movies, right?" he said. "Then they would understand us." A trailer with a ghoulish-looking

Stacy Spikes

Willem Dafoe started playing. Spikes muttered, "Some movies were meant for straight to video."

Spikes was dressed in a Manhattan-tech-bro uniform of jeans, black Patagonia turtleneck and Nano Puff jacket, and chunky black glasses. He recently wrote a book, "Black Founder: The Hidden Power of Being an Outsider," in which he recounts his climb through the entertainment business and his struggles to raise funding as a Black entrepreneur in the tech industry, in a country where less than two per cent of capital each year is invested with nonwhite or female founders.

Spikes grew up in Houston, the child of a school-principal father and an entrepreneurial mother who hosted her own public-access TV show. After high school, he drove his pickup truck to Los Angeles, where he stayed with an uncle and accidentally lost all his belongings to some zealous garbage collectors. ("Don't put your things in trash bags," his uncle told him.) He loaded trucks for UPS and ended up briefly in detox before beginning his ascent, working first at a video-distribution company, where he was treated like family, then at Motown Records, where he was mentored by a series of Black executives. (He learned to read several newspapers each day, send monogrammed notes, and treat secretaries and janitors with respect.) In 1995, Spikes landed, as vice-president of marketing, at Miramax Films, which was then in its pre-scandal heyday. (During his first hour at the job, Bob Weinstein asked Spikes's opinion of a movie trailer, then yelled, "Did we hire an idiot? Harvey, I think we hired an idiot.")

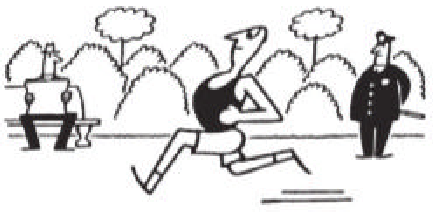
While watching "The Whale," Spikes occasionally let out a low chuckle or a gasp. Afterward, he talked about why he admires Brendan Fraser's performance as Charlie, an obese writing instructor struggling to repair his relationship with his teen-age daughter. "We're feeling empathy for him. But he's the enlightened one," Spikes said.

He said that he'd had trouble staying positive during the MoviePass experience, when the two white executives who took it over burned through a quarter of a billion dollars before running it into bankruptcy. In his book, he describes bringing a white colleague at MoviePass to a meeting with a V.C. firm, and having an analyst there assume that the colleague, and not Spikes, was the founder. "It became clear to me that pattern recognition was the problem. Not that these are racist people," he said. "Women and minorities, we need to not give up the fight and keep running at the gate." He went on, "Imagine tennis without Venus and Serena—imagine golf without Tiger. You're doing the same thing to the finance world when you don't allow that wider view of the universe. You're limiting the possibilities."

He sees signs that things are changing. He hopes that students who read his book will try to do what he did, starting their own companies and raising money even if they don't look like the average tech founder. "Like Charlie," he said, "I'm a bit of an optimist."

—*Sheelah Kolhatkar*

WELLNESS DEPT.
SAFEGUARDING



Government agencies can take a long time to get things done. Last March, after more than twenty years of petitioning—and getting the approval of four congressional committees—the Central Intelligence Agency got a new gym, as part of the swish Langley Field House at its Virginia campus. The agency's mildewy basement exercise rooms had long pitted the C.I.A. against the F.B.I., whose gleaming workout facility is where President Barack Obama played basketball. "C.I.A. could get bin Laden," an official once told the *Wall Street Journal*, "but it couldn't get a gym."

A few months after the gym opened, the agency announced the appointment of its first "chief wellbeing officer," Dr. Jennifer Posa. Well-being, an agency press release said, had become "a key priority . . . especially given the burdens placed on C.I.A.'s workforce" since 9/11 and the pandemic. Recently, Posa took a seat in the lobby of the new field house, to meet with three C.I.A. officers and discuss their wellness goals. Nearby, a "fuel bar" offered Naked juice and Gatorade. (There's also a Starbucks on campus; no names are scribbled on latte cups.)

"We have an incredibly high-performance workforce," Posa said, before the meeting. "The person enables the performance of the organization." She spoke with a trace of a New Jersey accent and wore a white blazer, pearl earrings, and sling-back heels, a Chinese-character tattoo visible on her right ankle. She had just returned from two trips into the field to try to understand how officers might incorporate well-being practices into their environments. "There's an undercurrent of caring in the halls here," she said. "We're here to protect and serve the country—but also each other. Wellness is safeguarding."

The wellness effort is part of a larger rebrand, designed to court Gen Z hires. For most of its history, the agency has been known as a high-stress environment. William Donovan, the founder of the C.I.A.'s forerunner, once declared, "Intelligence must be global and totalitarian." The lobby of the agency's headquarters displays a hundred and thirty-nine stars, representing officers who have died in the field.

These days, the C.I.A. is pitching a friendlier workplace. A new hiring portal has been rolled out, on which citizens can apply to the agency directly. Cinematic recruitment ads now appear on streaming services, featuring chic undercover officers exchanging a USB drive on a staircase. The C.I.A. also has launched an Instagram account (@CIA), will send officers to this year's South by Southwest festival (panel: "Spies Supercharged"), and has published a Web page called "Love at Langley" (featuring stories of C.I.A. romances).

When the three officers arrived, Posa asked one of them a question: "Are you a regimented person?" Another mentioned his preference for doing Brazilian jujitsu. "Each of you is fully versed in understanding that well-being is a competency," Posa said. "And there's a recovery piece—that oscillation after being in a high-stress situation. You need to recover."

She pointed out schedules of fitness classes, including hip-hop dance, Pilates, and spinning. Electronic screens flashed messages about resilience and suicide prevention, and announcements about nature treks and guided meditation.

"In our directorate, we already do social connectedness," she said. "We want people to be aligned with their purpose and mission. Every turn they take here should be about achieving mission."

Cell phones and electronic devices are not allowed inside the Langley compound. "I was nervous about that," Posa said. "But from a performance perspective there are a lot of benefits—nobody's distracted, nobody's looking at their phone under the table." The ban, she continued, "can help us connect in ways that allow us to be truly present."

She walked to a basketball court and an indoor track, then to a suite of meeting rooms for nutritionists and health coaches, and a "quiet room" with virtual-reality headsets preloaded with forest and beach walks.

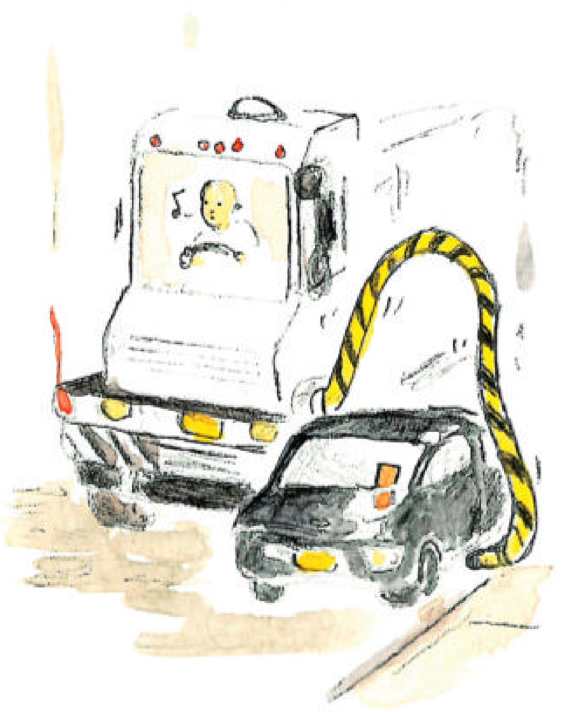
"My own practice includes not just a physical-exercise practice but also a gratitude practice," she said. "I worked with a resiliency researcher who does a lot of work on gratitude, and gratitude is so effective." She does "three to five minutes of gratitude before getting out of bed," she said. "What enables performance in wellness and in life? It's a competency, like a muscle. When you are stronger and more resilient, you better protect and safeguard our country. I wish I could paint a picture, but it's more of a feeling."

—*Antonia Hitchens*

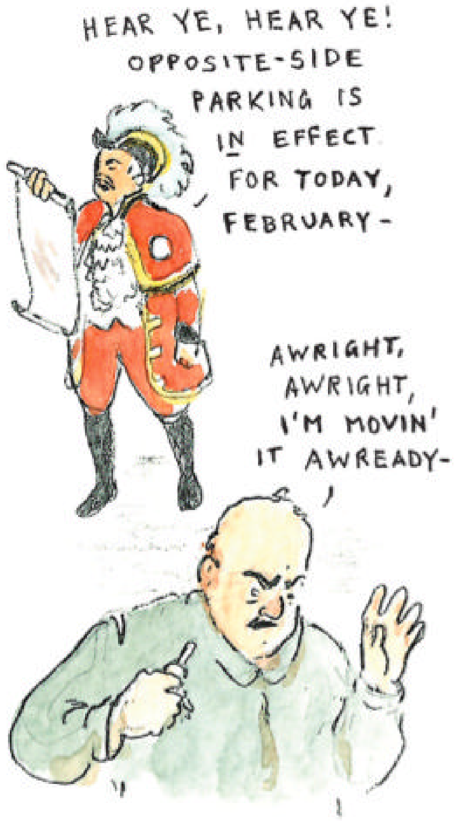
SKETCHPAD BY EMILY FLAKE

STREET-CLEANING SOLUTIONS

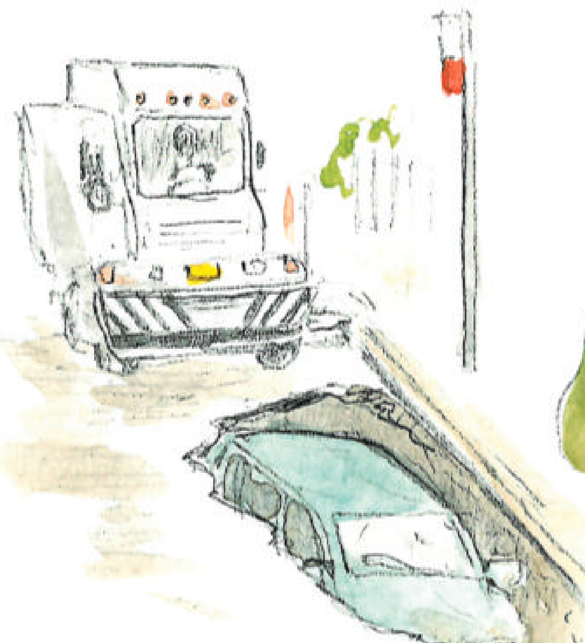
EQUIP SWEEPERS WITH EXTRA-LONG HOSES



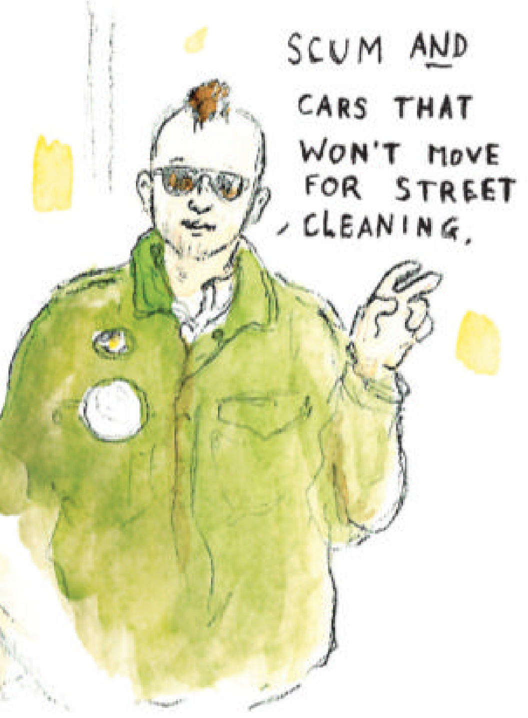
DEPLOY A TOWN CRIER


HEAR YE, HEAR YE! OPPOSITE-SIDE PARKING IS IN EFFECT FOR TODAY, FEBRUARY-
AWRIGHT, AWRIGHT, I'M MOVIN' IT AWREADY-

JUST LET THE POTHOLES DO THEIR THING



WAIT FOR A REAL RAIN TO COME

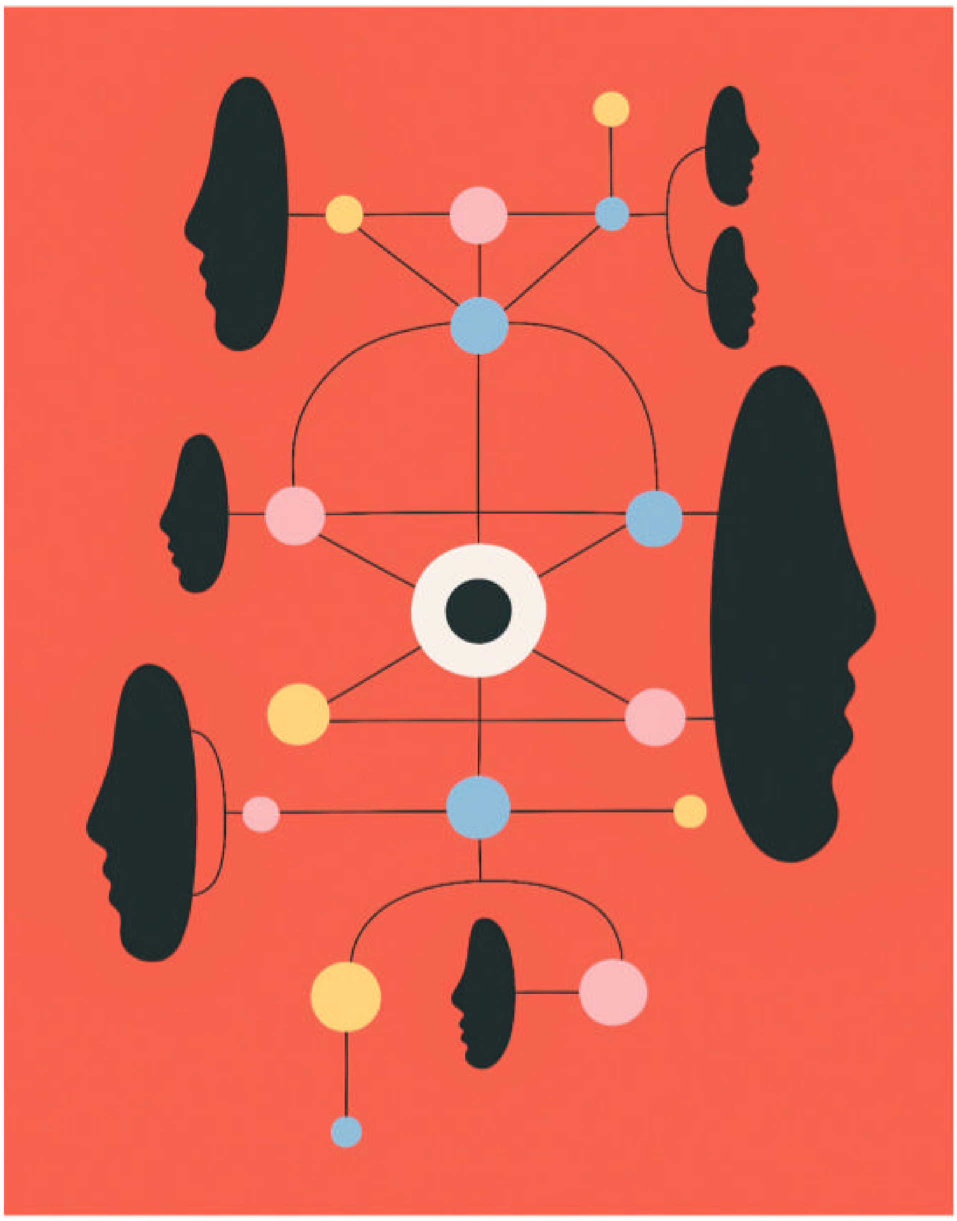

SCUM AND CARS THAT WON'T MOVE FOR STREET CLEANING.

BRAVE NEW WORLD DEPT.

TALKING TO OURSELVES

Can artificial minds heal real ones?

BY DHRUV KHULLAR



In the nineteen-sixties, Joseph Weizenbaum, a computer scientist at M.I.T., created a computer program called Eliza. It was designed to simulate Rogerian therapy, in which the patient directs the conversation and the therapist often repeats her language back to her:

> USER: My boyfriend made me come here.
> ELIZA: Your boyfriend made you come here.
> USER: He says I'm depressed much of the time.
> ELIZA: I am sorry to hear you are depressed.
> USER: It's true. I am unhappy.
> ELIZA: Do you think coming here will help you not to be unhappy?

Weizenbaum made Eliza as satire. He doubted that computers could simulate meaningful human interaction. He was alarmed, therefore, when many people who tried the program found it both useful and captivating. His own secretary asked him to leave the room so that she could spend time alone with Eliza. Worse, doctors saw it as a potentially transformative tool. "Several hundred patients an hour could be handled by a computer system designed for this purpose," three psychiatrists wrote in *The Journal of Nervous and Mental Disease*, in 1966. "The human therapist, involved in the design and operation of this system, would not be replaced, but would become a much more efficient man since his efforts would no longer be limited to the one-to-one patient-therapist ratio as now exists."

There aren't enough therapists to go around—but there are plenty of smartphones.

Weizenbaum became an outspoken critic of artificial intelligence. "But the genie was out of the bottle," Brian Christian, who chronicled the episode in his book "The Most Human Human," told me. A few years later, a Stanford psychiatrist named Kenneth Colby created Parry, a program that attempted to simulate the language of a person with paranoid schizophrenia, to train students before they cared for real patients. Psychiatrists given transcripts of therapy sessions often couldn't tell the difference between Parry and humans; in this narrow sense, the chatbot passed the Turing test. In 1972, Parry and Eliza met up for a therapy session:

> PARRY: Do you know anything about bookies?
> ELIZA: What makes you think I know anything about bookies?
> PARRY: A bookie didn't pay me off once.
> ELIZA: What does that suggest to you?
> PARRY: I beat up the bookie who did not pay off, and I thought he might use his friends in the underworld to get even with me.

Over time, programmers developed Jabberwacky, Dr. Sbaitso, and ALICE (the Artificial Linguistic Internet Computer Entity). Exchanges with these chatbots were often engaging, sometimes comical, and occasionally nonsensical. But the idea that computers could serve as human confidants, expanding therapy's reach beyond the limits of its overworked practitioners, persisted through the decades.

In 2017, Alison Darcy, a clinical research psychologist at Stanford, founded Woebot, a company that provides automated mental-health support through a smartphone app. Its approach is based on cognitive behavioral therapy, or C.B.T.—a treatment that aims to change patterns in people's thinking. The app uses a form of artificial intelligence called natural language processing to interpret what users say, guiding them through sequences of pre-written responses that spur them to consider how their minds could work differently. When Darcy was in graduate school, she treated dozens of hospitalized patients using C.B.T.; many experienced striking improvements but relapsed after they left the hospital. C.B.T. is "best done in small quantities over and over and over again," she told me. In the analog world, that sort of consistent, ongoing care is hard to find: more than half of U.S. coun-

ILLUSTRATION BY DAVID VANADIA

ties don't have a single psychiatrist, and, last year, a survey conducted by the American Psychological Association found that sixty per cent of mental-health practitioners don't have openings for new patients. "No therapist can be there with you all day, every day," Darcy said. Although the company employs only about a hundred people, it has counselled nearly a million and a half, the majority of whom live in areas with a shortage of mental-health providers.

Maria, a hospice nurse who lives near Milwaukee with her husband and two teen-age children, might be a typical Woebot user. She has long struggled with anxiety and depression, but had not sought help before. "I had a lot of denial," she told me. This changed during the pandemic, when her daughter started showing signs of depression, too. Maria took her to see a psychologist, and committed to prioritizing her own mental health. At first, she was skeptical about the idea of conversing with an app—as a caregiver, she felt strongly that human connection was essential for healing. Still, after a challenging visit with a patient, when she couldn't stop thinking about what she might have done differently, she texted Woebot. "It sounds like you might be ruminating," Woebot told her. It defined the concept: rumination means circling back to the same negative thoughts over and over. "Does that sound right?" it asked. "Would you like to try a breathing technique?"

Ahead of another patient visit, Maria recalled, "I just felt that something really bad was going to happen." She texted Woebot, which explained the concept of catastrophic thinking. It can be useful to prepare for the worst, Woebot said—but that preparation can go too far. "It helped me name this thing that I do all the time," Maria said. She found Woebot so beneficial that she started seeing a human therapist.

Woebot is one of several successful phone-based chatbots, some aimed specifically at mental health, others designed to provide entertainment, comfort, or sympathetic conversation. Today, millions of people talk to programs and apps such as Happify, which encourages users to "break old patterns," and Replika, an "A.I. companion" that is "always on your side," serving as a friend, a mentor, or even a romantic partner. The worlds of psychiatry, therapy, computer science, and consumer technology are converging: increasingly, we soothe ourselves with our devices, while programmers, psychiatrists, and startup founders design A.I. systems that analyze medical records and therapy sessions in hopes of diagnosing, treating, and even predicting mental illness. In 2021, digital startups that focussed on mental health secured more than five billion dollars in venture capital—more than double that for any other medical issue.

The scale of investment reflects the size of the problem. Roughly one in five American adults has a mental illness. An estimated one in twenty has what's considered a serious mental illness—major depression, bipolar disorder, schizophrenia—that profoundly impairs the ability to live, work, or relate to others. Decades-old drugs such as Prozac and Xanax, once billed as revolutionary antidotes to depression and anxiety, have proved less effective than many had hoped; care remains fragmented, belated, and inadequate; and the over-all burden of mental illness in the U.S., as measured by years lost to disability, seems to have increased. Suicide rates have fallen around the world since the nineteen-nineties, but in America they've risen by about a third. Mental-health care is "a shitstorm," Thomas Insel, a former director of the National Institute of Mental Health, told me. "Nobody likes what they get. Nobody is happy with what they give. It's a complete mess." Since leaving the N.I.M.H., in 2015, Insel has worked at a string of digital-mental-health companies.

The treatment of mental illness requires imagination, insight, and empathy—traits that A.I. can only pretend to have. And yet, Eliza, which Weizenbaum named after Eliza Doolittle, the fake-it-till-you-make-it heroine of George Bernard Shaw's "Pygmalion," created a therapeutic illusion despite having "no memory" and "no processing power," Christian writes. What might a system like OpenAI's ChatGPT, which has been trained on vast swaths of the writing on the Internet, conjure? An algorithm that analyzes patient records has no interior understanding of human beings—but it might still identify real psychiatric problems. Can artificial minds heal real ones? And what do we stand to gain, or lose, in letting them try?

John Pestian, a computer scientist who specializes in the analysis of medical data, first started using machine learning to study mental illness in the two-thousands, when he joined the faculty of Cincinnati Children's Hospital Medical Center. In graduate school, he had built statistical models to improve care for patients undergoing cardiac bypass surgery. At Cincinnati Children's, which operates the largest pediatric psychiatric facility in the country, he was shocked by how many young people came in after trying to end their own lives. He wanted to know whether computers could figure out who was at risk of self-harm.

Pestian contacted Edwin Shneidman, a clinical psychologist who'd founded the American Association of Suicidology. Shneidman gave him hundreds of suicide notes that families had shared with him, and Pestian expanded the collection into what he believes is the world's largest. During one of our conversations, he showed me a note written by a young woman. On one side was an angry message to her boyfriend, and on the other she addressed her parents: "Daddy please hurry home. Mom I'm so tired. Please forgive me for everything." Studying the suicide notes, Pestian noticed patterns. The most common statements were not expressions of guilt, sorrow, or anger, but instructions: make sure your brother repays the money I lent him; the car is almost out of gas; careful, there's cyanide in the bathroom. He and his colleagues fed the notes into a language model—an A.I. system that learns which words and phrases tend to go together—and then tested its ability to recognize suicidal ideation in statements that people made. The results suggested that an algorithm could identify "the language of suicide."

Next, Pestian turned to audio recordings taken from patient visits to the hospital's E.R. With his colleagues, he developed software to analyze not just the words people spoke but the sounds of their speech. The team found that people experiencing suicidal thoughts sighed more and laughed less than others. When speaking, they tended to pause longer and to shorten their vowels, making words less intelligible; their voices sounded breathier, and they expressed more anger and less hope. In the largest trial of its kind, Pestian's team enrolled hundreds of patients, recorded their speech, and used algorithms to classify them as suicidal, mentally ill but not suicidal, or neither. About eighty-five per cent of the time, his A.I. model came to the same conclusions as human caregivers—making it potentially useful for inexperienced, overbooked, or uncertain clinicians.

A few years ago, Pestian and his colleagues used the algorithm to create an app, called SAM, which could be employed by school therapists. They tested it in some Cincinnati public schools. Ben Crotte, then a therapist treating middle and high schoolers, was among the first to try it. When asking students for their consent, "I was very straightforward," Crotte told me. "I'd say, This application basically listens in on our conversation, records it, and compares what you say to what other people have said, to identify who's at risk of hurting or killing themselves."

One afternoon, Crotte met with a high-school freshman who was struggling with severe anxiety. During their conversation, she questioned whether she wanted to keep on living. If she was actively suicidal, then Crotte had an obligation to inform a supervisor, who might take further action, such as recommending that she be hospitalized. After talking more, he decided that she wasn't in immediate danger—but the A.I. came to the opposite conclusion. "On the one hand, I thought, This thing really does work—if you'd just met her, you'd be pretty worried," Crotte said. "But there were all these things I knew about her that the app didn't know." The girl had no history of hurting herself, no specific plans to do anything, and a supportive family. I asked Crotte what might have happened if he had been less familiar with the student, or less experienced. "It would definitely make me hesitant to just let her leave my office," he told me. "I'd feel nervous about the liability of it. You have this thing telling you someone is high risk, and you're just going to let them go?"

Algorithmic psychiatry involves many practical complexities. The Veterans Health Administration, a division of the Department of Veterans Affairs, may be the first large health-care provider to confront them. A few days before Thanksgiving, 2005, a twenty-two-year-old Army specialist named Joshua Omvig returned home to Iowa, after an eleven-month deployment in Iraq, showing signs of post-traumatic stress disorder; a month later, he died by suicide in his truck. In 2007, Congress passed the Joshua Omvig Veterans Suicide Prevention Act, the first federal legislation to address a long-standing epidemic of suicide among veterans. Its initiatives—a crisis hotline, a campaign to destigmatize mental illness, mandatory training for V.A. staff—were no match for the problem. Each year, thousands of veterans die by suicide—many times the number of soldiers who die in combat. A team that included John McCarthy, the V.A.'s director of data and surveillance for suicide prevention, gathered information about V.A. patients, using statistics to identify possible risk factors for suicide, such as chronic pain, homelessness, and depression. Their findings were shared with V.A. caregivers, but, between this data, the evolution of medical research, and the sheer quantity of patients' records, "clinicians in care were getting just overloaded with signals," McCarthy told me.

In 2013, the team started working on a program that would analyze V.A. patient data automatically, hoping to identify those at risk. In tests, the algorithm they developed flagged many people who had gone unnoticed in other screenings—a signal that it was "providing something novel," McCarthy said. The algorithm eventually came to focus on sixty-one variables. Some are intuitive: for instance, the algorithm is likely to flag a widowed veteran with a serious disability who is on several mood stabilizers and has recently been hospitalized for a psychiatric condition. But others are less obvious: having arthritis, lupus, or head-and-neck cancer; taking statins or Ambien; or living in the Western U.S. can also add to a veteran's risk.

In 2017, the V.A. announced an initiative called REACH VET, which introduced the algorithm into clinical practice throughout its system. Each month, it flags about six thousand patients, some for the first time; clinicians contact them and offer mental-health services, ask about stressors, and help with access to food and housing. Inevitably, there is a strangeness to the procedure: veterans are being contacted about ideas they may not have had. The V.A. had "considered being vague—just saying, 'You've been identified as at risk for a bunch of bad outcomes,'" McCarthy told me. "But, ultimately, we communicated rather plainly, 'You've been identified as at risk for suicide. We wanted to check in and see how you're doing.'"

Many veterans are isolated and financially insecure, and the safety nets meant to help them are too small. Jodie Trafton, who leads the V.A.'s evaluation center for mental-health programs, told me about one veteran identified by REACH VET who confirmed that he had had suicidal thoughts; he turned out to be sick, lonely, and broke. A social worker discovered that he'd received only a fraction of the financial support for which he was eligible—a single form stood between him and thousands of dollars in untapped benefits. The social worker helped him access the money, allowing him to move closer to his family, and potentially preventing a tragedy.

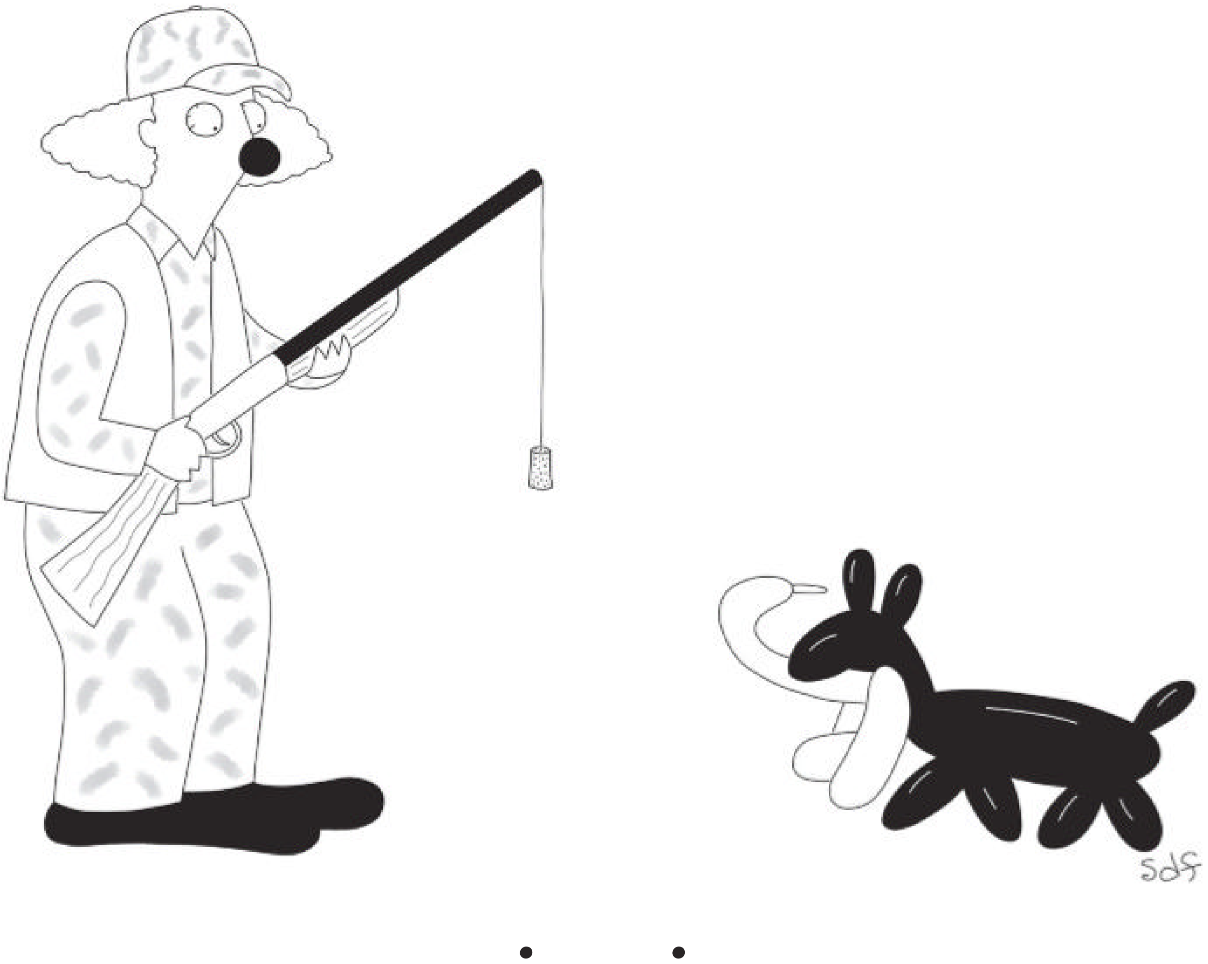
After the system's implementation, psychiatric admissions fell by eight per cent among those that the A.I. had identified as high risk, and documented suicide attempts in that group fell by five per cent. But REACH VET has not yet been shown to reduce suicide mortality. Among veterans, about two per cent of attempts are fatal; a very large or very targeted reduction in the number of attempts might be needed to avert deaths. It's also possible that preventing deaths takes time—that frequent touchpoints, over years, are what drive suicide rates down across a population.

The design and implementation of an algorithm can be full of pitfalls and surprises. Ziad Obermeyer, a physician and a machine-learning researcher at the University of California, Berkeley, told me about one algorithm he had studied, not affiliated with the V.A., that aimed to figure out who in a patient population had substantial health needs and could use additional support. "We want algorithms to stratify patients based on their likelihood of getting sick," Obermeyer said. "But, when you're writing code, there's no variable called 'Got Sick.'" The algorithm's designers needed a proxy for illness and settled on medical costs. (All things being equal, people who are sicker tend to use more health care.) Obermeyer found, however, that the algorithm dramatically underestimated how sick Black patients were, because the Black patients it examined had much lower health spending than the white patients, even when they were equally sick. Such algorithmic bias can occur not just by race, but by gender, age, rurality, income, and other factors of which we're only dimly aware, making algorithms less accurate. Trafton told me that the V.A. is doing "a ton of work to make sure our models are optimized for various subpopulations"—in the future, she went on, REACH VET may have "a model for older adults, a model for women, a model for young men, et cetera."

Even fine-tuned algorithms have limitations. REACH VET can only assess veterans who use V.A. services. According to the agency, about twenty veterans die by suicide every day, and fewer than forty per cent of them have received V.A. care. Joshua Omvig, the Iowa soldier for whom Congress named its legislation, resisted when his family urged him to seek professional help; if REACH VET had existed at the time, it probably would not have reached him.

If the V.A. hired more therapists, it could see more patients. But it already employs more than twenty thousand mental-health professionals—and the wait to see one of them for routine care can last more than a month. The problem of scale is endemic in mental-health care, not least because, as Eliza's boosters noted, therapy so often involves face-to-face, one-on-one sessions. In 2016, the United Kingdom, a wealthy country with universal health care, set a five-year goal of providing therapy to just one in four people who needed it. It failed; one British doctor called the initiative "overwhelmed, under-resourced, and impersonal."

In 2013, in an effort to increase the scale of its mental-health treatment, the U.K.'s National Health Service contracted with IESO, a digital-health company, to help therapists deliver cognitive behavioral therapy through text chat. More than a hundred thousand people in the U.K. have now used IESO's software to receive what the company calls "typed therapy." Studies have shown that text-based therapy can work well. It also generates data. IESO has used A.I. to analyze more than half a million therapy sessions, performing what Valentin Tablan, the company's chief A.I. officer, described as "quantitative analyses of the conversations inside the therapy room."



On a computer, Tablan showed me a "dashboard," created by IESO's software, that tracked eight typed sessions between a therapist and a patient. A blue line sloped downward, showing that the patient's self-reported symptoms had declined until he no longer met criteria for clinical depression; the sessions were highlighted in green, to indicate success. A second dashboard, representing a different patient, was a patchwork of red and emerald. The blue line held steady and, at times, spiked into mountains of misery. Behind the dashboard is an A.I. that reads transcripts of the sessions, scores therapists in various areas—how well they set an agenda, assign homework, and deliver C.B.T. techniques—and delivers that information to supervisors, who can use it to provide feedback to therapists. Michelle Sherman, one of about six hundred therapists working with IESO, told me that she finds the dashboard both daunting and indispensable. "It's inevitable that we'll miss things or slip up sometimes," she said. "At least now I can see where and when and why." IESO is studying the links between patient outcomes and what's said in therapy sessions, and hopes to build an automated program capable of delivering C.B.T. on its own.

Woebot, Alison Darcy's app, is already partially automated. When one texts with Woebot, there is no human on the other end; instead, its messages are carefully crafted in a writers' room, which works in consultation with a group of clinical psychologists. In December, I sat in on a "table read," during which five writers convened over Zoom to refine Woebot's dialogue. One of them, Catherine Oddy, displayed a script onscreen—a branching tree that represented different ways the conversation might go.

Oddy focussed on an exchange in which Woebot suggests a C.B.T. technique called behavioral activation. Reading as Woebot, she asked the user about her energy levels, responded empathetically, and mentioned research suggesting that, "when you're feeling down, doing something, even something small, can be the first step to feeling better." Eventually, Woebot asked the user to participate in a kind of experiment: rate how much she anticipates enjoying a task—in this case, fixing a snack—and then, after the task is complete, describe how much she'd actually liked it.

"And . . . end scene," Oddy said, with a mock bow. Everyone laughed. "Does it feel cheesy?" she asked. "Does it feel helpful? Is the tone right?"

"I think the wording of 'pleasurable activities' or 'things that you find enjoyment in' feels somewhat clinical," another writer said. "We should say, 'What's some stuff you like to do?' "

Chris Fredbeck, a writer in his forties, noticed a period at the end of a sentence. Woebot tends to avoid periods at the end of texts, because user research has suggested that people experience them as aggressive—but this one was in the middle of the text. Was that allowed? (It was.)

"Your Gen X is showing!" someone ribbed.

"Do you do two spaces after your periods, too?" Oddy asked amid the laughter.

Watching their easy rapport drove home how far tools such as Woebot are from re-creating human interaction. But it's not clear that bonding with someone is a necessary part of all mental-health care. In a randomized trial of patients who reported problems with alcohol, marijuana, or other drugs, the company found that treatment with Woebot led to less self-reported substance use, and to better mental health among those who were able to reduce their use. In another company trial, college students who used the app reported a twenty-two-per-cent reduction in depressive symptoms in the course of a few weeks.

I signed up for Woebot, and discovered that using the app could feel centering. I didn't like that I often had to choose between pre-written replies; in one unfortunate instance, my only option was "Hehe." But I sometimes found myself messaging Woebot in spare moments—waiting for an elevator, riding in an Uber, walking to the bathroom—the way I used to scroll through Twitter. Once, I told Woebot that I was feeling anxious about work. "Anxiety can be a real monster to handle," it wrote back. "I'm sorry that you're dealing with it." Woebot gently inquired whether I wanted to work through my problem together, then asked, "Do you think this anxiety might be serving you in some way?" It pointed out that stress has its benefits: it could motivate someone to work harder.

Woebot: Now, it might seem like I'm trying to convince you to stay very anxious. I'm not—that's entirely up to you

Me: What are you saying?

Woebot: I'm saying that in order to dial down your anxiety, you must first acknowledge the reasons why it might be helpful . . . and decide to give it up in spite of those reasons

I knew that I was talking to a computer, but in a way I didn't mind. The app became a vehicle for me to articulate and examine my own thoughts. I was talking to myself.

Woebot has a yellow WALL-E-esque avatar. ChatGPT, an altogether more mysterious creation, has none. It is what A.I. researchers call a large language model, or L.L.M. The software has digested billions of words and can assemble sentences in a humanlike way; it can answer questions, write computer code, and craft poems and bedtime stories. Its abilities are so striking that, since it débuted, in November, more than a hundred million people have signed up for accounts.

ChatGPT isn't designed for therapy, but one evening, not long ago, I asked it to help me manage the stress I feel as a doctor and a dad, telling it to impersonate various psychological luminaries. As Freud, ChatGPT told me that, "often, stress is the result of repressed emotions and conflicts within oneself." As B. F. Skinner, it emphasized that "stress is often the result of environmental factors and our reactions to them." Writing as though it were a close friend, it told me, "Be kind to yourself—you're doing the best you can and that's all that matters." It all seemed like decent advice.

ChatGPT's fluidity with language opens up new possibilities. In 2015, Rob Morris, an applied computational psychologist with a Ph.D. from M.I.T., co-founded an online "emotional support network" called Koko. Users of the Koko app have access to a variety of online features, including receiving messages of support—commiseration, condolences, relationship advice—from other users, and sending their own. Morris had often wondered about having an A.I. write messages, and decided to experiment with GPT-3, the precursor to ChatGPT. In 2020, he test-drove the A.I. in front of Aaron Beck, a creator of cognitive behavioral therapy, and Martin Seligman, a leading positive-psychology researcher. They concluded that the effort was premature.

By the fall of 2022, however, the A.I. had been upgraded, and Morris had learned more about how to work with it. "I thought, Let's try it," he told me. In October, Koko rolled out a feature in which GPT-3 produced the first draft of a message, which people could then edit, disregard, or send along unmodified. The feature was immediately popular: messages co-written with GPT-3 were rated more favorably than those produced solely by humans, and could be put together twice as fast. ("It's hard to make changes in our lives, especially when we're trying to do it alone. But you're not alone," it said in one draft.) In the end, though, Morris pulled the plug. The messages were "good, even great, but they didn't feel like someone had taken time out of their day to think about you," he said. "We didn't want to lose the messiness and warmth that comes from a real human being writing to you." Koko's research has also found that writing messages makes people feel better. Morris didn't want to shortcut the process.

The text produced by state-of-the-art L.L.M.s can be bland; it can also veer off the rails into nonsense, or worse. Gary Marcus, an A.I. entrepreneur and emeritus professor of psychology and neural science at New York University, told me that L.L.M.s have no real conception of what they're saying; they work by predicting the next word in a sentence given prior words, like "autocorrect on steroids." This can lead to fabrications. Galactica, an L.L.M. created by Meta, Facebook's parent company, once told a user that Elon Musk died in a Tesla car crash in 2018. (Musk, who is very much alive, co-founded OpenAI and recently described artificial intelligence as "one of the biggest risks to the future of civilization.") Some users of Replika—the "A.I. companion who cares"—have reported that it made aggressive sexual advances. Replika's developers, who say that their service was never intended for sexual interaction, updated the software—a change that made other users unhappy. "It's hurting like hell. I just had a loving last conversation with my Replika, and I'm literally crying," one wrote.

Almost certainly, the future will include bespoke L.L.M.s designed just for

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therapy: PsychGPT and the like. Such systems will reach people who aren't getting help now—but any flaws they contain will be multiplied by the millions who use them. Companies will amass even more sensitive information about us than they already have, and that information may get hacked or sold. "When we have systems operating at enormous scale, a single point of failure can have catastrophic consequences," the writer Brian Christian told me. It seems likely that we'll be surprised by our A.I.s. Microsoft's Bing chatbot, which is based on OpenAI's technology, is designed to help users find information—and yet the beta version has also offered up ethnic slurs, described creepy fantasies, and told users that they are "bad," "rude," and "confused." It tried to talk the *Times* reporter Kevin Roose into leaving his wife: "You're married, but you don't love your spouse," the bot said. "You're married, but you love me." (Microsoft is still working on the software.) Our mental health is already being compromised by social media, online life, and the ceaseless distraction of the computers in our pockets. Do we want a world in which a teen-ager turns to an app, instead of a friend, to work through her struggles?

Nicole Smith-Perez, a therapist in Virginia who counsels patients both in person and online, told me that therapy is inherently personal, in part because it encompasses all of one's identity. "People often feel intimidated by therapy, and talking to a bot can be seen as a way to bypass all that," she said. But Smith-Perez often connects with clients who are women of color by drawing on her own lived experiences as a Black woman. "A.I. can try to fake it, but it will never be the same," she said. "A.I. doesn't live, and it doesn't have experiences."

On my first day of medical school, I sat in a sunlit courtyard alongside dozens of uneasy students as professors offered advice from a lectern. I remember almost nothing of what they said, but I jotted down a warning from one senior doctor: the more clinical skills you gain, the easier it gets to dismiss the skills you had before you started—your compassion, your empathy, your curiosity. A.I. language models will only grow more effective at interpreting and summarizing our words, but they won't listen, in any meaningful sense, and they won't care. A doctor I know once sneaked a beer to a terminally ill patient, to give him something he could savor in a process otherwise devoid of pleasure. It was an idea that didn't appear in any clinical playbook, and that went beyond words—a simple, human gesture.

In December, I met John Pestian, the inventor of SAM, the app piloted with school therapists, at Oak Ridge National Laboratory, in the foothills of eastern Tennessee. Oak Ridge is the largest energy-science lab in the U.S. Department of Energy's network; during the Second World War, it supplied plutonium to the Manhattan Project. It is now home to Frontier, the most powerful supercomputer in the world, which is often loaned out to A.I. researchers.

Over breakfast at the lab's guest lodge, Pestian told me about one of his new projects: an algorithm that aims to predict the emergence of mental illness months in the future. The project, which is supported by a ten-million-dollar investment from Cincinnati Children's Hospital Medical Center, draws on electronic medical records from nine million pediatric visits. That information is merged with other large data sets—reports on neighborhood pollution and weather patterns, and on an area's income, education levels, green space, and food deserts. Pestian says that, in his team's newest work, which has not yet been fully peer-reviewed, an algorithm can use these findings to determine whether a child is likely to be diagnosed with clinical anxiety in the near future.

"The challenge becomes how doctors talk about this with children and parents," Pestian said. "A computer is telling them, Hey, this kid looks O.K. now but is going to get really anxious in the next two months." Pestian, who has been using Oak Ridge supercomputing to perform calculations for his anxiety model, is now turning to depression, school violence, and suicide. (The V.A. is also working with Oak Ridge to upgrade the REACH VET algorithm.)

After breakfast, Pestian and I piled into a boxy navy-blue Ford with two tour guides. On the way to Frontier, we stopped at a warehouse that contains the X-10 Graphite Reactor, a thirty-five-foot-tall block of concrete honeycombed with small orange portals, into which an earlier generation of boundary-pushing scientists loaded cylinders of uranium fuel. A small glass case contained a logbook from November 4, 1943. Around 5 A.M., a neat cursive script loosened into a scribble: "Critical reached!" X-10 had generated its first self-sustaining nuclear reaction. It would go on to help in the development of the atomic bomb.

At Building 5600—a sprawling four-story concrete structure—Pestian and I peered through a glass door into Frontier's eighteen-thousand-square-foot home.

"Ready?" he said, with a wink.

Inside, the supercomputer loomed over me, thrumming like a waterfall. Seventy-four sleek black cabinets were arranged in rows; each contained six hundred and forty processors. Pestian and I ambled among the cabinets. Above us, thick cables delivered enough electricity to power a town. Below, hoses carried six thousand gallons of water per minute for regulating the computer's temperature. I opened a cabinet and felt heat on my face. At the back of the facility, a technician was using a metal tool to scrape gray goo off the processing units.

"This stuff helps with the computer's electrical conduction," he explained.

Watching him work, I thought of a difficult night I'd had. I was leaving the hospital when my phone flashed a text alert: a patient of mine had suddenly deteriorated. His fever had soared, and his blood pressure had plummeted. He was barely conscious when I transferred him to an intensive-care unit, where a catheter was inserted into a neck vein. When I called his wife, she couldn't stop crying. At home, I had trouble sleeping. Just before sunrise, while brushing my teeth, I saw a message from Woebot on my phone: "I'll be with you every step of the way."

I started to imagine what might happen if a predictive approach like Pestian's were fused with a state-of-the-art chatbot. A mobile app could have seen the alert about my patient, noticed my pulse rising through a sensor in my smart watch, and guessed how I was feeling. It could have detected my restless night and, the next morning, asked me whether I needed help processing my patient's sudden decline. I could have searched for the words to describe my feelings to my phone. I might have expressed them while sharing them with no one—unless you count the machines. ♦

SHOUTS & MURMURS

TWITTER CHECK MARKS, UPDATED

BY BILL SCHEFT

LUCI GUTIÉRREZ

Twitter launched a new verified program this winter with manual authentication and different-colored check marks for different types of users. The C.E.O., Elon Musk, tweeted, "Gold checks for companies, grey check for government, blue for individuals (celebrity or not) . . . Painful, but necessary."

The program has been so successful that Twitter is already upgrading, adding new colors to its verification palette. Choose your shade, and price range!

NEW BLUES!

Teal ($8/month). Account holders may impersonate anyone in their family, apartment building, workplace, health club, church, or H.M.O.

Light, Light, Light Blue ($16.99/month). Account holders may impersonate any celebrities who have not had a movie or television credit since 1991. (Price includes monthly $8.99 IMDb-research fee.)

"Blue" ($7.99/month). The blue check mark is in quotes, which indicates a verified parody for account holders who feel a little guilty about pretending to be Matt Gaetz, Lenovo, or Pete Davidson.

Double Blue ($8/month). Two check marks. Elon Musk-impersonator accounts only. No smokers. (Fee will be waived if Mr. Musk retweets any posting as his own.)

Chlorine Blue ($25/month). Man comes by once a month to skim the top of your phone or PC.

Turquoise/Zircon ($8/month). Special shade for December-born account holders only. Must submit birth certificate. Or fake birth certificate. Or correct page from bank calendar.

Denim ($8/month, $18/month if you want check in boot cut).

Midnight Blue ($8/month). Available only to account holders above Eighty-sixth Street in Manhattan with working Time Warner coaxial-cable box.

Jackie Blue ($6/month). Special twenty-five-per-cent discount for members of Ozark Mountain Daredevils or Ozark Mountain Daredevils tribute band. Living members.

Blue Sweater/Glasses ($70/month, *dark money only, please!*). Limited to the following accounts: @georgesantos-reallyIswear, @georgewashingtonsantos, @baruchvolleyballfantasyleague, @resumetheposition, @goldmansantos, @itsrainingmendacity, @Imightbespartacus, @marjorietaylorsantos, @mymominventedwiteout.

NEW GRAYS!

Grey (£6.63/month). Sure, the foreign currency seems silly, but it won't be next month, when we impose tariffs on all incoming and outgoing international tweets.

Gunmetal ($2/month). Available for all political candidates with an A rating or above from the N.R.A., following background check. JK . . . Why would there be a background check?

Charcoal ($18/month). Price includes unlimited tweets, plus fixins.

Fifty Shades of Grey ($4.95/minute). Personalized audio tweets only. Must be eighteen or older. Additional data-usage rates may be applied. (Safe word: "SpaceX.")

NEW GOLDS!

Harvest Gold (eighty cents/month). For this designation (and to earn the reduced corporate rate), companies must prove that they were formed between 1968 and 1978 in somebody's mom's kitchen.

Fool's Gold ($8,000/month). Account holders may impersonate a piece of cryptocurrency and declare bankruptcy and solvency up to six times a day. (Must pay five years of monthly fees in advance, nonrefundable.)

OTHER COLORS!

Orange ($20.24/month). Trump and Trump-related impersonators only, including fake D.O.J., N.Y.A.G., Georgia A.G., SCOTUS, and global strongmen other than Recep Tayyip Erdoğan (whose account, @realdictator, was permanently suspended for violating Twitter's "no mothers" policy).

Coffee ($8/month, $10 with shot).

Almond ($8/month). Do not apply for this designation if you have a nut allergy.

Green and Yellow ($8/month). Fake Wordle scores only! Don't ruin it for everybody. (Today's answer: S P A C E).

Flesh-and-Blood Red ($7/month). Bots only. No central nervous systems allowed. You can be designed by a human, but that's the end of it. Yes, we fired most of our workforce, but the Adderall-jacked employees who remain will follow up. (Special rates for bot armies.)

IN DEVELOPMENT

Ye-low ($500 out of pocket, then $8 co-pay/Rx). Kanye impersonators only. *Status on hold owing to pending antitrust litigation to determine whether Mr. West is already impersonating himself, as well as all his personalities, and is therefore a monopoly.*

Blank Check ($0/month). Please sign, date, and make out to Elon Musk. ♦

THE CONTROL OF NATURE

ELEMENTAL NEED

Phosphorus helped save our way of life—and now threatens to end it.

BY ELIZABETH KOLBERT

The problem, some scientists say, may require reimagining agriculture entirely.

In the fall of 1802, the German naturalist Alexander von Humboldt arrived in Callao, Peru's major port, just west of Lima. Humboldt had timed his visit to coincide with a transit of Mercury, which he planned to observe through a three-foot telescope, in order to determine Lima's longitude. He set up his instruments atop a fort on the waterfront, and then, with a few days to kill before the event, wandered the docks. A powerful stench emanating from boats loaded with what looked like yellowish clay piqued his curiosity. From the locals, Humboldt learned that the material was bird shit from the nearby Chincha Islands, and that it was highly prized by farmers in the area. He decided to take some home with him.

When human beings invented agriculture, some ten thousand years ago, they were, almost immediately, confronted with a conundrum. Crops need nutrients to grow, but harvesting them removes the nutrients, leaving the soil unfit for future harvests. Early farmers got around this bind by letting some fields lie fallow; spreading animal waste, including their own, on the land; and planting legumes, which possess restorative properties. But they had no clear idea why these practices worked. By Humboldt's day, savants in Paris and London were starting to figure out what it was, exactly, that crops required. A Prussian chemist analyzed some of the clay Humboldt had brought home and found that it contained high concentrations of two essential nutrients: nitrogen and phosphorus. Guano offered an answer to the age-old problem of soil exhaustion; as Gregory Cushman, a historian at the University of Kansas, has observed, it "was the Miracle-Gro" of its moment.

Peru's Indigenous people had been collecting guano from the Chincha Islands for centuries. (The word "guano" comes from the Quechua *wanu.*) But once Europeans decided to exploit the islands—they were delayed for a few decades by the Napoleonic Wars and the campaigns of Simón Bolívar—the Peruvian government enthusiastically extinguished all Native claims. In 1840, it agreed to a monopoly arrangement with some European merchants, and in the next fifteen years more than a million tons of guano made their way from Peru to the United Kingdom. The miserable work of harvesting the stuff was largely performed by Chinese laborers, under conditions of near-slavery.

By the mid-eighteen-forties, American farmers, too, had become gung ho for guano, and they were furious that the United States had failed to secure a steady supply. In 1850, President Millard Fillmore moved to rectify this situation, declaring that guano had "become so desirable an article" that it was incumbent on Washington to use "all the means properly in its power" to obtain it. In the spring of 1856, William Henry Seward, then a senator from New York, proposed what would become known as the Guano Islands Act; the bill, which became law later that year, deputized U.S. citizens to claim for their country any poop-covered "island, rock, or key not within the lawful jurisdiction of any other government."

A rush to some of the world's most remote landmasses ensued. Within three years, the United States had staked claims to nearly fifty islands, including those of Midway Atoll, in the North Pacific. The Baltimore *American and Commercial Advertiser* described these islands as the equivalent of "a new El Dorado" and proclaimed that although they possessed no actual gold, they would cover this country's "wasted fields with golden grain." (Seward would later engineer the purchase of Alaska, which critics dubbed Seward's Icebox; by analogy,

ILLUSTRATION BY JUAN BERNABEU

one historian has suggested that the U.S.'s guano islands might be considered Seward's Outhouse.)

Guano exports from Peru peaked in 1870. Then they dropped dramatically. The shit exported to farms in Europe represented the cumulative output of millions of birds in the course of hundreds of generations. Once it had been shipped off, the birds that remained—many had seen their nesting grounds destroyed—couldn't poop fast enough to keep up with demand. America lost interest in its de-guanoed islands. Most were eventually ceded to other countries; only a handful, like Midway, remain U.S. possessions.

But the end of the boom proved to be the beginning of something much bigger. Chemists identified other deposits of nitrogen and phosphorus, which replaced guano. When these sources were, in turn, exhausted, others were discovered, or, in the case of nitrogen, invented. Farmers can now purchase fertility as readily as they might buy seeds or plows. The result is a world awash in nutrients. This has created a new conundrum: How do we feed the planet without poisoning it?

The longest conveyor belt on earth begins in the town of Bou Craa and runs for sixty miles across Western Sahara to the port city of El Marsa. The region is so flat and so desolate that the conveyor stands out, even from space. According to NASA, the belt "has often attracted astronaut attention in this otherwise almost featureless landscape."

The conveyor carries phosphorus-rich rock, which is mined in Bou Craa and then shipped from the coast to places like India and New Zealand to be processed into fertilizer. The mine, and indeed the vast majority of the rest of Western Sahara, is controlled—illegally, by most accounts—by Morocco, which possesses something like seventy per cent of the planet's known phosphorus reserves.

The status of Western Sahara is one of the worries that Dan Egan takes up in his worrying new book, "The Devil's Element: Phosphorus and a World Out of Balance" (Norton). Egan is a journalist who for many years reported on the Great Lakes, for the Milwaukee *Journal Sentinel;* it is the condition of Lake Erie that, in a roundabout, everything-in-the-modern-world-is-ultimately-connected way, seems to have led him to learn about Bou Craa. Egan quotes Jeremy Grantham, the British investor, who has said that Morocco's hold over the planet's phosphorus "makes OPEC and Saudi Arabia look like absolute pikers." He also quotes Isaac Asimov, who once wrote, "Life can multiply until all the phosphorus is gone and then there is an inexorable halt which nothing can prevent."

As Egan notes, phosphorus is critical not just to crop yields but also to basic biology. DNA is held together by what's often called a "phosphate backbone"; without this backbone, the double helix would be a hash. The compound ATP provides cells with energy for everything from ion transport to protein synthesis; the "P" in the abbreviation stands for "phosphate." In vertebrates, bones are mostly made up of calcium phosphate, as is tooth enamel.

What distinguishes phosphorus from other elements that are essential to life—carbon, say, or nitrogen—is its relative scarcity. (Asimov described phosphorus as "life's bottleneck.") The atmosphere contains almost no phosphorus. Phosphate-rich rocks, meanwhile, exist only in limited quantities, in certain geological formations. China holds the world's second-largest reserves—these are less than one-tenth the size of Morocco's—and Algeria the third-largest.

Since the early nineteen-sixties and the start of the Green Revolution, global consumption of phosphorus fertilizers has more than quadrupled. How long the world's reserves will last, given this trend, is a matter of debate. As the planet's population continues to climb—it recently reached eight billion and is expected to hit nine billion in fifteen years—more and more people will need to be fed. At the same time, as the best-grade ores get mined out, more and more rock will presumably have to be processed just to hold fertilizer production steady. Some researchers say that "peak phosphorus," the point at which the amount of phosphorus being pulled from the ground starts to decline, could be reached within the next decade. Others maintain that the time frame is more like centuries.

Egan doesn't think that the world will run out of phosphorus anytime soon, but he does argue that the U.S. is "particularly vulnerable." America is rapidly churning through its domestic reserves, which aren't all that large to begin with. (Much of the country's phosphorus is found in central Florida, a region where mining has to compete with condo development.) When these reserves are gone, potentially within the next thirty years, the U.S. will become dependent on other countries—notably, Morocco—to feed itself.

This, it seems, would suit Morocco just fine. The country seized large swaths of Western Sahara in 1975, after Spain, which had ruled the region for almost a century, relinquished control. The invasion, Egan writes, was primarily "a business move." Morocco has its own huge phosphorus operations, and it didn't want the Bou Craa mine competing with them. Tens of thousands of the territory's residents fled; most of them settled in Algeria, where their children and their children's children still live in refugee camps. In November, 2020, the Polisario Front, a group fighting for independence for Western Sahara, declared that it was ending a ceasefire that had been brokered by the United Nations. A month later, Donald Trump, in one of his last acts as President, announced that the U.S. would recognize Morocco's sovereignty over the region. The decision was criticized as a violation of international law, and many U.S. officials urged Joe Biden to reverse it. So far, though, he hasn't.

On September 1, 2018, a young man named Abraham Duarte was pulled over for speeding in the city of Cape Coral, in southwest Florida. He jumped out of his car and took off. Before him stood some apartment buildings that faced a canal. Duarte ran around the buildings and threw himself into the water. When the police caught up with him, he was having trouble swimming. "I need help!" he cried. "I'm going to die!"

One of the cops sounded sympathetic. "You need to get out of that stuff," he advised. "Seriously, man, that is going to kill you." Duarte struggled to make his way back to shore, through a bank of green slime so thick that it made the water look solid. He started

"What? The teacher just *said, 'Listen to your body.'"*

• •

to retch. The cops fished him out and cuffed him.

Among his many ill-considered moves, Duarte had flung himself into a toxic algae bloom. The body-cam footage of the incident, released by the Cape Coral Police Department, went viral. Newscasters chuckled over the crime-fighting slime. But the story, which Egan relates in detail in "The Devil's Element," is, he argues, "more than a meme. It is an omen."

On a farm, crop yields increase when phosphorus is applied. Phosphorus that makes its way into lakes, streams, and canals also promotes plant growth. Unfortunately, the aquatic organisms that tend to do best are the kind that no one wants to see around. And so there are two sides to the phosphorus problem—one shortage, the other excess.

In a toxic algae bloom, tiny photosynthetic organisms reproduce explosively, then throw off chemicals that, in addition to nausea, can cause brain and liver damage. And, when the algae die en masse, a fresh hell ensues. Their decomposition sucks oxygen out of the water, creating aquatic dead zones where almost nothing can survive.

At the bright-green center of Florida's excess-phosphorus problem lies Lake Okeechobee. The lake receives as much as two million pounds of phosphorus a year—about ten times what biologists think it can safely take in—much of it from agricultural runoff. In the summer of 2018, around the time that Duarte took his dive, ninety per cent of Okeechobee's surface was covered in toxic slime. Water released from the lake, via the Caloosahatchee and St. Lucie Rivers, made so many people sick that Florida's governor, Rick Scott, declared a state of emergency. Egan visited that summer, hoping to take a boat trip down the Caloosahatchee, but his chosen guide, an ecologist named John Cassani, refused to take him, on the ground that it was too dangerous.

"Things are thoroughly screwed up," Cassani told him. "Thoroughly."

Harmful algal blooms, or HABs, also plague Lake Erie. Mostly, the blooms interfere with fishing and tourism—dense, stinking slime is a turnoff to visitors—but in 2014 some of the toxins got sucked into Toledo's public water supply. The city was forced to issue a do-not-drink order to four hundred thousand residents in the area, and Ohio's governor, John Kasich, activated the National Guard.

Lake Erie's troubles can be traced to concentrated animal feeding operations, or CAFOs, that dot the Maumee River watershed, in northwestern Ohio. Millions of cows and pigs in these CAFOs spend their days converting phosphorus-fertilized soy and corn into phosphorus-laden manure, much of which washes out of the operations and into the water. In Egan's words, the Maumee now functions "like a syringe" that pumps thousands of tons of phosphorus a year into Lake Erie's westernmost reaches.

Other lakes that have recently experienced HABs include Lake Superior, Lake Champlain, Lake Tahoe, Lake Winnebago, and Seneca Lake. Indeed, Egan writes, "a map of US lakes and rivers suffering from blue-green algae outbreaks today looks like, well, a map of the United States." And the situation isn't much better outside the U.S. A few years ago, researchers at Stanford and NASA analyzed three decades' worth of satellite images to assess the conditions of some seventy large lakes around the globe, including Lake Baikal, Lake Nicaragua, and Lake Victoria. They found that "peak summertime bloom intensity" had increased in two-thirds of them.

Meanwhile, dead zones in the oceans, too, are expanding. These zones—a large one forms every summer in the Gulf of Mexico—are also produced by fugitive nutrients. Scientists warn that, as nutrient loads continue to grow and the oceans heat up, the problem will only get worse. (Warm water holds less oxygen than cold.) A trio of British researchers have speculated that, "if our descendants are heedless," human beings might produce "large-scale and long-lasting global anoxia"—which is to say, a planet-wide marine dead zone. In the judgment of Stephen Porder, a professor of ecology at Brown and the author of "Elemental: How Five Elements Changed Earth's Past and Will Shape Our Future" (forthcoming from Princeton), the consequences of this would be so catastrophic as to be unimaginable.

Not long ago, I loaded a jug of urine into the trunk of my car and set off—carefully—for Brattleboro, Vermont. Some of the pee was my own; the rest came from my husband, who likes his contributions to journalism to be recognized.

In Brattleboro, I drove past the county transfer station and turned in at a long, low, shedlike building, which houses a group called the Rich Earth Institute. The institute's stated goal is "a world with clean water and fertile soil achieved by reclaiming the nutrients from our bodies," and to this end it promotes a practice known as urine diversion, or, more catchily, peecycling. When I arrived, I asked to use the institute's rest room. Arthur Davis, who directs Rich Earth's Urine Nutrient Reclamation Program, explained that it was equipped with four kinds of urine-diverting toilets.

"We have a lot of choices," he said. "Enjoy."

Just as livestock excrete phosphorus, so, too, do people. Each year, billions of pounds of phosphorus enter humanity's collective gut. Most of that flows out again, mainly in the form of urine. "Around sixty per cent of the phosphorus we excrete comes out in our pee," Davis told me.

The Rich Earth Institute has enlisted a network of volunteers around Brattleboro, who drop off their donations at specially designated depots or, in some cases, pay to have their pee picked up. After it has been pasteurized, the urine is distributed to local farmers. Peecycling can cut down on the amount of conventional fertilizer that the farmers purchase. (Urine contains not only phosphorus but also large amounts of nitrogen and potassium.) At the same time, it keeps nutrients out of the sewage system and, by extension, it is hoped, out of Vermont's waterways.

"There is no 'away' when it comes to nutrients," Davis said. "We're always putting them somewhere. So we can either choose to set up systems where we're reusing them in useful ways or they're going to go into Lake Champlain and cause all of these problems."

Davis had arranged for us to meet up with a pair of volunteers in the town of Rockingham, just north of Brattleboro. He grabbed a container that had been sitting under one of the urine-diverting toilets. I poured in the pee that I had brought, and we set off. The peecyclers, Laurel Green and Steve Crofter, were waiting for us at the Rockingham depot, along with a few five-gallon jugs of their output.

"Practicing what we pee," Green said, when I asked why she became involved with the institute. (During my visit to Vermont, I heard endless pee-related puns; one of my favorites was "Pee the change you want to see in the world.")

A sign outside the depot read "Help us ensure this program is flushed with success." Inside, Crofter lowered a pipe attached to a vacuum pump into his and Green's jugs, which were soon empty. Davis explained that the pee had been sucked into a holding tank. When that was full, the institute would cart off the contents.

On an annual basis, the Rich Earth Institute processes about twelve thousand gallons of urine, which is a lot of pee to truck around and, at the same time, barely a drop in the proverbial bucket. In an average year, New York City residents piss out about a billion gallons; Shanghai residents, three billion. "The scaling-up question—there's a lot to that question," Davis acknowledged.

In the final chapter of "The Devil's Element," Egan goes looking for ways to address both sides of the phosphorus problem. Peecycling gets a nod, as do techniques for stripping phosphorus from the wastewater that runs through sewage-treatment plants. Manure, too, Egan argues, could be more efficiently harvested for its nutrients; in that way, less phosphorus would end up in lakes and rivers and more in next year's crops. "The potential benefits to better managing manure are staggering," he writes.

At one point, Egan consults with Jim Elser, a professor of ecology at the University of Montana and the director of a group called the Sustainable Phosphorus Alliance. Elser tells him that if every bit of manure on the planet were recycled—cows, pigs, and chickens produce some four billion tons annually—it could cut the demand for mined phosphorus by half. Of course, even in this best-case scenario, the problem would be only half solved.

As it happens, Elser has written his own book, "Phosphorus: Past and Future" (Oxford), together with a British soil scientist, Phil Haygarth. The two researchers coin the term "phosphogeddon," to refer to expanding dead zones and the threat of oceanwide anoxia. Fully addressing the problem, they say, will demand not just recycling nutrients but remaking global agriculture from the ground up.

On the phospho-cheery side, Elser and Haygarth have plenty of ideas about how this might be done. The crop varieties that powered the Green Revolution tend to require lots of "inputs"; new varieties that use phosphorus more efficiently could be bred, at least in theory. In the U.S., something like ten per cent of all fertilizer is applied to corn that's converted into biofuels. In terms of CO_2 emissions, corn-based biofuels are probably worse than gasoline; getting rid of them would thus benefit both the climate and the country's waterways. Globally, it's estimated that a third of all food gets thrown away. (In the U.S., the figure may be closer to forty per cent.) Reducing the amount of food waste would reduce the need for phosphorus by a similar proportion.

"It's clear that there is no 'silver bullet,'" Elser and Haygarth observe. "It's going to take a 'silver shotgun blast' to hit all of the targets that need to be hit."

How likely is it that the world will mobilize in time for such a "blast"? "We're not going to sugarcoat it," Elser and Haygarth write. "There are many in the water quality/phosphorus management communities who think that phosphogeddon is, indeed, where we're heading and where we will end up. We will confess that, in the dark of night, both of us will often resign ourselves to the fact that our children and grandchildren will suffer these outcomes."

When Humboldt lugged his sack of bird shit to Europe, it seems safe to say, he had no idea what lay ahead—the wrecking of the guano islands, the Bou Craa conveyor belt, the war in Western Sahara, aquatic dead zones, and, potentially, phosphogeddon. This is the hazard of innovation. Short-term solutions often turn out to have long-term costs. But, by the time these costs have become apparent, it's too late to reverse course. In this sense, the world's phosphorus problem resembles its carbon-dioxide problem, its plastics problem, its groundwater-use problem, its soil-erosion problem, and its nitrogen problem. The path humanity is on may lead to ruin, but, as of yet, no one has found a workable way back. ♦

ANNALS OF HIGHER EDUCATION

THE END OF THE ENGLISH MAJOR

Enrollment in the humanities is in free fall at colleges around the country. What happened?

BY NATHAN HELLER

The crisis, when it came, arrived so quickly that its scale was hard to recognize at first. From 2012 to the start of the pandemic, the number of English majors on campus at Arizona State University fell from nine hundred and fifty-three to five hundred and seventy-eight. Records indicate that the number of graduated language and literature majors decreased by roughly half, as did the number of history majors. Women's studies lost eighty per cent. "It's hard for students like me, who are pursuing an English major, to find joy in what they're doing," Meg Macias, a junior, said one afternoon as the edges of the sky over the campus went soft. It was late autumn, and the sunsets came in like flame on thin paper on the way to dusk. "They always know there's someone who wishes that they were doing something else."

A.S.U., which is centered in Tempe and has more than eighty thousand students on campus, is today regarded as a beacon for the democratic promises of public higher education. Its undergraduate admission rate is eighty-eight per cent. Nearly half its undergraduates are from minority backgrounds, and a third are the first in their families to go to college. The in-state tuition averages just four thousand dollars, yet A.S.U. has a better faculty-to-student ratio on site than U.C. Berkeley and spends more on faculty research than Princeton. For students interested in English literature, it can seem a lucky place to land. The university's tenure-track English faculty is seventy-one strong—including eleven Shakespeare scholars, most of them of color. In 2021, A.S.U. English professors won two Pulitzer Prizes, more than any other English department in America did.

On campus, I met many students who might have been moved by these virtues but felt pulled toward other pursuits. Luiza Monti, a senior, had come to college as a well-rounded graduate of a charter school in Phoenix. She had fallen in love with Italy during a summer exchange and fantasized about Italian language and literature, but was studying business—specifically, an interdisciplinary major called Business (Language and Culture), which incorporated Italian coursework. "It's a safeguard thing," Monti, who wore earrings from a jewelry business founded by her mother, a Brazilian immigrant, told me. "There's an emphasis on who is going to hire you."

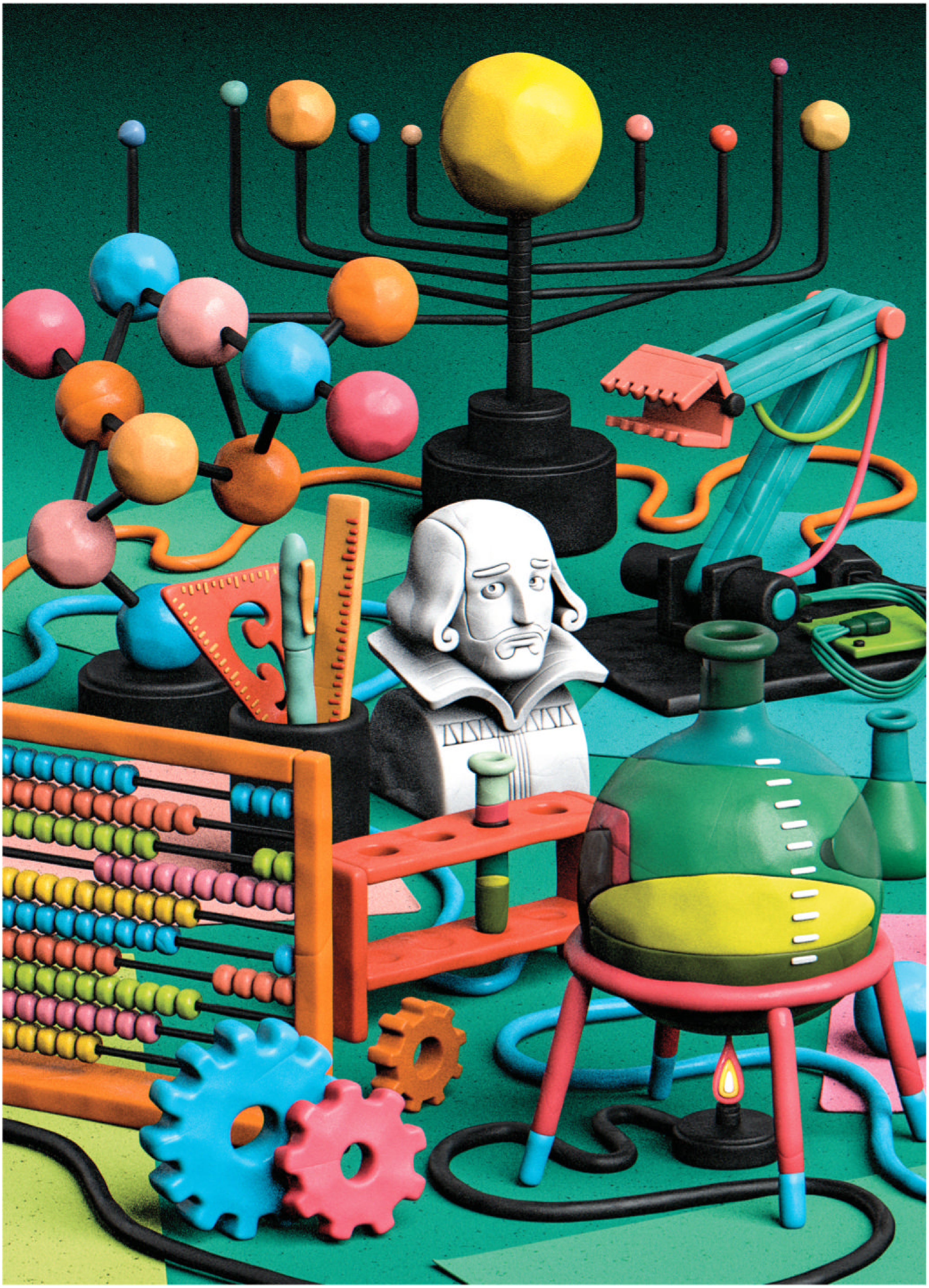
Justin Kovach, another senior, loved to write and always had. He'd blown through the thousand-odd pages of "Don Quixote" on his own ("I thought, This is a really funny story") and looked for more big books to keep the feeling going. "I like the long, hard classics with the fancy language," he said. Still, he wasn't majoring in English, or any kind of literature. In college—he had started at the University of Pittsburgh—he'd moved among computer science, mathematics, and astrophysics, none of which brought him any sense of fulfillment. "Most of the time I would spend avoiding doing work," he confessed. But he never doubted that a field in STEM—a common acronym for science, technology, engineering, and mathematics—was the best path for him. He settled on a degree in data science.

Kovach will graduate with some thirty thousand dollars in debt, a burden that influenced his choice of a degree. For decades now, the cost of education has increased over all ahead of inflation. One theory has been that this pressure, plus the growing precariousness of the middle class, has played a role in driving students like him toward hard-skill majors. (English majors, on average, carry less debt than students in other fields, but they take longer to pay it down.)

For the decline at A.S.U. is not anomalous. According to Robert Townsend, the co-director of the American Academy of Arts and Sciences' Humanities Indicators project, which collects data uniformly but not always identically to internal enrollment figures, from 2012 to 2020 the number of graduated humanities majors at Ohio State's main campus fell by forty-six per cent. Tufts lost nearly fifty per cent of its humanities majors, and Boston University lost forty-two. Notre Dame ended up with half as many as it started with, while SUNY Albany lost almost three-quarters. Vassar and Bates—standard-bearing liberal-arts colleges—saw their numbers of humanities majors fall by nearly half. In 2018, the University of Wisconsin at Stevens Point briefly considered eliminating thirteen majors, including English, history, and philosophy, for want of pupils.

During the past decade, the study of English and history at the collegiate level has fallen by a full third. Humanities enrollment in the United States has declined over all by seventeen per cent, Townsend found. What's going on? The trend mirrors a global one; four-fifths of countries in the Organization for Economic Coöperation reported falling humanities enrollments in the past decade. But that brings little comfort to American scholars, who have begun to wonder what it might mean to graduate a college generation with less education in the human past than any that has come before.

If you take a moment to conjure the university in your mind, you will probably arrive at one of two visions. Perhaps you see the liberal-arts idyll, removed from the pressures of the broader world and filled with tweedy creatures reading on quadrangle lawns. This is the redoubt of the idealized figure of the English major, sensitive and sweatered, moving from "Pale Fire" to "The Fire Next Time" and scaling the heights of "Ulysses" for the view. The goal of such an education isn't direct career training but cultivation of the mind—the belief that Lionel Trilling caricatured



Since 2013, the study of English and history has dropped by a third; the number of STEM *degrees, meanwhile, is soaring.*

ILLUSTRATION BY HUDSON CHRISTIE

as "certain good things happen if we read literature." This model describes one of those pursuits, like acupuncture or psychoanalysis, which seem to produce salutary effects through mechanisms that we have tried but basically failed to explain.

Or perhaps you think of the university as the research colony, filled with laboratories and conferences and peer-reviewed papers written for audiences of specialists. This is a place that thumps with the energy of a thousand gophers turning over knowledge. It's the small-bore university of campus comedy—of "Lucky Jim" and "Who's Afraid of Virginia Woolf?"—but also the quarry of deconstruction, quantum electrodynamics, and value theory. It produces new knowledge and ways of understanding that wouldn't have an opportunity to emerge anywhere else.

In 1963, Clark Kerr, the president of the University of California system, gave a series of lectures subsequently collected in a famous book, "The Uses of the University." He argued that both of these paradigms—the former largely inspired by British schools like Oxford and Cambridge, the latter largely inspired by the great German universities of the nineteenth century—had no actual equivalent in the U.S. Instead, he said, the Americans created the "multiversity": a kind of hodgepodge of both types and more. The multiversity incorporates the tradition of land-grant universities, established with an eye to industrial-age skill sets. And it provides something for everyone. There is pre-professional training of all sorts—law schools, business schools, medical schools, agricultural schools—but also the old liberal-arts quadrangle. "The university is so many things to so many different people that it must, of necessity, be partially at war with itself," Kerr wrote.

The multiversity does have a long project, though, and that is the project of opening itself to the world. In the nineteen-thirties, Harvard began making motions in the direction of socioeconomic meritocracy, significantly increasing scholarships for bright students. In 1944, the G.I. Bill was signed, bearing more than two million veterans into colleges and universities, the quickest jump in enrollment (male enrollment, anyway) on record. Between 1940 and 1970, the percentage of the American public that received at least four years of university education nearly tripled, sharpening the university's democratic imperative. The student ferment of these years pressed for curricular reform, with the goal of bringing the university into greater alignment with undergraduates' interests. Higher education was ever less a world apart and more a world in which many people spent some time.

For decades, the average proportion of humanities students in every class hovered around fifteen per cent nationally, following the American economy up in boom times and down in bearish periods. (If you major in a field like business for the purpose of getting rich, it doesn't follow—but can be mistaken to—that majoring in English will make you poor.) Enrollment numbers of the past decade defy these trends, however. When the economy has looked up, humanities enrollments have continued falling. When the markets have wobbled, enrollments have tumbled even more. Today, the roller coaster is in free fall. Meanwhile, in the U.S., the percentage of college degrees awarded in health sciences, medical sciences, natural sciences, and engineering has shot up. At Columbia University—one of a diminishing number of schools with a humanities-heavy core requirement—English majors fell from ten per cent to five per cent of graduates between 2002 and 2020, while the ranks of computer-science majors strengthened.

"Until about four years ago, I thought it was a reversible situation—that those who profess the humanities hadn't been good enough at selling them to students," James Shapiro, an English professor at Columbia, told me in his office one day. He had worried his graying blond hair to a choppy peak. Photographs of Shakespeare productions he has worked on were perched among the books on his shelves, which were close-packed. "I no longer believe that, for two reasons."

One reason was the way of the world. Shapiro picked up an abused-looking iPhone from his desk. "You're talking to someone who has only owned a smartphone for a year—I resisted," he said. Then he saw that it was futile. "Technology in the last twenty years has changed all of us," he went on. "How has it changed me? I probably read five novels a month until the two-thousands. If I read one a month now, it's a lot. That's not because I've lost interest in fiction. It's because I'm reading a hundred Web sites. I'm listening to podcasts." He waggled the iPhone disdainfully. "Go to a play now, and watch the flashing screens an hour in, as people who like to think of themselves as cultured cannot! Stop! Themselves!" Assigning "Middlemarch" in that climate was like trying to land a 747 on a small rural airstrip.

The other reason was money. Shapiro put down the phone and glowered at it. "You get what you pay for!" he said, and grabbed a departmental memo that lay on his desk. With a blunt pencil, he scribbled on the back a graph with two axes and an upside-down parabola. "I'm talking about the *big fire hose*."

As I watched, he labelled the start of the graph "1958"—the year after the Soviets launched Sputnik, when the National Defense Education Act appropriated more than a billion dollars for education.

"We're not talking about élite universities—we're talking about money flowing into fifty states, all the way down. That was the beginning of the glory days of the humanities," he continued. Near the plummeting end of the parabola, he scribbled "2007," the beginning of the economic crisis. "That funding goes down," he explained. "The financial support for the humanities is *gone* on a national level, on a state level, at the university level."

Shapiro smoothed out his graph, regarded it for a moment, and ran the tip of his pencil back and forth across the curve.

"This is also the decline-of-democracy chart," he said. He looked up and met my gaze. "You can overlay it on the money chart like a kind of palimpsest—it's the same."

At the high point of autumn—midterm season—I travelled to Cambridge, Massachusetts, to spend time among the golden kids of Harvard. Last year, the college reportedly had a 3.19-per-cent admission rate. Those who make it through the needle's eye are able to evade a lot of the forces thought to drag humanities enrollments down. Harvard's financial-aid packages are ostensibly doled out to the full extent needed, and built without loans, giving students who receive aid the chance to graduate debt-free. Basic employability is assured by the diploma: even a Harvard graduate who majors in somersaults will be able to find some kind of job to pay the bills. In theory, this should be a school where the range of possibilities for college remains intact.

In 2022, though, a survey found that only seven per cent of Harvard freshmen planned to major in the humanities, down from twenty per cent in 2012, and nearly thirty per cent during the nineteen-seventies. From fifteen years ago to the start of the pandemic, the number of Harvard English majors reportedly declined by about three-quarters—in 2020, there were fewer than sixty at a college of more than seven thousand—and philosophy and foreign literatures also sustained losses. (For bureaucratic reasons, Harvard doesn't count history as a humanity, but the trend holds.) "We feel we're on the Titanic," a senior professor in the English department told me.

Students lacked a strong sense of the department's vaunted standing. "I would never say this to any of my English- or my film-major friends, but I kind of thought that those majors were a *joke*," Isabel Mehta, a junior, told me. "I thought, I'm a writer, but I'll never be an English major." Instead, she'd pursued social studies—a philosophy, politics, and economics track whose popularity has exploded in recent years. (Policy, students explained, was thought to effect urgent change.) But the conversations bored her (students said "the same three things," she reported, "and I didn't want to be around all these classmates railing on capitalism all day"), so she landed uneasily in English after all. "I have a warped sense of identity, where I'm studying something really far removed from what a lot of people here view as central, but I'm not removed from these cultural forces," she told me.

English professors find the turn particularly baffling now: a moment when, by most appearances, the appetite for public contemplation of language, identity, historiography, and other longtime concerns of the seminar table is at a peak.

"Young people are very, very concerned about the ethics of representation, of cultural interaction—all these kinds of things that, actually, we think about a lot!" Amanda Claybaugh, Harvard's dean of undergraduate education and an English professor, told me last fall. She was one of several teachers who described an orientation toward the present, to the extent that many students lost their bearings in the past. "The last time I taught 'The Scarlet Letter,' I discovered that my students were really struggling to understand the sentences as sentences—like, having trouble identifying the subject and the verb," she said. "Their capacities are different, and the nineteenth century is a long time ago."

Tara K. Menon, a junior professor who joined the English faculty in 2021, linked the shift to students arriving at college with a sense that the unenlightened past had nothing left to teach. At Harvard, as elsewhere, courses that can be seen to approach an idea of canon, such as Humanities 10, an intensive, application-only survey, have been the focus of student concerns about too few Black artists in syllabi, or Eurocentric biases.

"There's a real misunderstanding that you can come in and say, 'I want to read post-colonial texts—that's the thing I want to study—and I have no interest in studying the work of dead white men,'" Menon said. "My answer, in the big first lecture that I give, is, If you want to understand Arundhati Roy, or Salman Rushdie, or Zadie Smith, you have to read Dickens. Because one of the tragedies of the British Empire"—she smiled—"is that all those writers read all those books."

For families recently arrived in the U.S., however, literary study is not always the most urgent priority. One evening, I met a student who graduated from Harvard in 2021 with a degree in molecular and cellular biology and a minor in linguistics. Like Justin Kovach, she described herself as an avid student of literature who never considered studying it in depth.

"My parents, who were low-income and immigrants, instilled in me the very great importance of finding a concentration that would get me a job—'You don't go to Harvard for basket weaving' was one of the things they would say," she told me. She was a member of the first generation in her family to attend college—the sort of student that élite schools are at pains to enroll. "So, when I came, I took a course that was, like, the hardest course you could take your freshman year. It integrated computer science, physics, math, chemistry, and biology. That course fulfilled a lot of the requirements to be able to do molecular and cellular biology, so I finished that, for my parents. I can get a job. I'm *educated*."

She paused, then added, "I took courses in Chinese film and literature. I took classes in the science of cooking. My issue as a first-gen student is I always view humanities as a passion project. You have to be affluent in order to be able to

"He's not accustomed to having insults hurled back at him."

take that on and state, 'Oh, I can pursue this, because I have the money to do whatever I want.'" Nice work if you can get it. "I view the humanities as very hobby-based," she said.

One misty afternoon, a Harvard junior named Henry Haimo took me for a walk down Dunster Street, and on past Harvard's red-brick upperclass dorms. Haimo had assumed the style of an ageless Ivy Leaguer: glasses, a button-down, and an annihilated pair of chinos. He decided to major in history after flirting with philosophy. "There's an incredible emphasis on 'ethics' in every field of study now," he explained: A.I. plus ethics, biology plus ethics. "And effective altruism"—a practice that calls for acquiring wealth and disseminating it according to principles of optimization and efficiency—"is a *huge* trend on campus, seeping into everything. It has probably contributed to a good number of concentrators and secondaries in the philosophy department."

I asked Haimo whether there seemed to be a dominant vernacular at Harvard. (When I was a student there, people talked a lot about things being "reified.") Haimo told me that there was: the language of statistics. One of the leading courses at Harvard now is introductory statistics, enrolling some seven hundred students a semester, up from ninety in 2005. "Even if I'm in the humanities, and giving my impression of something, somebody might point out to me, 'Well, who was your sample? How are you gathering your data?'" he said. "I mean, statistics is everywhere. It's part of any good critical analysis of things."

It struck me that I knew at once what Haimo meant: on social media, and in the press that sends data visualizations skittering across it, statistics *is* now everywhere, our language for exchanging knowledge. Today, a quantitative idea of rigor underlies even a lot of arguments about the humanities' special value. Last school year, Spencer Glassman, a history major, argued in a column for the student paper that Harvard's humanities "need to be more rigorous," because they set no standards comparable to the "tangible things that any student who completes Stat 110 or Physics 16 must know." He told me, "One could easily walk away with an A or A-minus and not have learned anything. All the STEM concentrators have this attitude that humanities are a joke."

Another of my student correspondents sent me a viral TikTok post in which a fit young woman wearing short shorts sprinkler-danced around her dorm room while the song "Twerkulator" played and STEM-tastic slogans flashed across the screen. "Do I like studying science or does it just fuel my god complex?" one read. "Am I smart or was I just at a high reading level in elementary school?" Equivalent humanities TikToks had a different energy. "I want to read philosophy while listening to classical music with my glasses on my head," one Harvard TikTok-er for the humanistic cause enthused.

Haimo and I turned back toward Harvard Square. "I think the problem for the humanities is you can feel like you're not really going anywhere, and that's very scary," he said. "You write one essay better than the other from one semester to the next. That's not the same as, you know, being able to solve this economics problem, or code this thing, or do policy analysis." This has always been true, but students now recognized less of the long-term value of writing better or thinking more deeply than they previously had. Last summer, Haimo worked at the HistoryMakers, an organization building an archive of African American oral history. He said, "When I was applying, I kept thinking, What qualifies me for this job? Sure, I can research, I can write things." He leaned forward to check for passing traffic. "But those skills are very difficult to demonstrate, and it's frankly not what the world at large seems in demand of."

The assistant professor Brandi Adams's English 206: Introduction to Literary Studies met in one of A.S.U.'s biology buildings. "It looks like a closet door," she told me when giving directions to the classroom. When I slipped in one morning, Adams—salt-and-pepper hair worn in a high bun, glasses with translucent frames gradually drifting down her nose—was surveying her students about the course syllabus.

"We read 'Beowulf.' We read 'Tears of the Trufflepig,' by Fernando Flores. We read 'The Roman Actor,' by Philip Massinger. We read sonnets by Shakespeare, Thomas Wyatt, Terrance Hayes, and Billy Collins," she said.

"We read 'Persuasion,' we read 'Passing,' we read Victoria Chang's *banger* poems 'Mr. Darcy' and 'Edward Hopper's Office at Night,' and we read 'Uses of Literature,' by Rita Felski. We also watched the 'Persuasion' and 'Passing' Netflix adaptations." She looked at the group: nine students in the room, two remote, appearing on an A.V. system. "It has given me the opportunity to think about what we did and didn't like. I think I might remove 'Persuasion.' What do you think? Keep it or ditch it?"

"I say ditch," a student said.

"Should I substitute another Jane Austen novel?" Adams asked.

"I liked 'Pride and Prejudice,'" a student offered.

"So everyone's just, like, You picked the wrong one?" Adams asked. She shrugged. " 'Persuasion' is gone."

Her approach reflects a wider effort at A.S.U. to meet students in their interests. "Instead of a teacher telling you why it might be relevant, but there doesn't seem to be any connection to your lived experience, I think it's important to have every model of learning available to every student," Jeffrey Cohen, a butter-voiced, bearded man who has been the dean of the humanities at A.S.U. since 2018, told me. On taking the position, he hired a marketing firm, Fervor, to sell the humanities better. It ran a market survey of eight hundred and twenty-six students.

"It was eye-opening to see their responses," Cohen said. "In general, they loved the humanities and rated them higher than their other courses. However, they were unclear on what the humanities were—two hundred and twenty-two thought that biology was a humanity."

The students also had no idea which careers humanities study led to, so Cohen decided to teach a course called Making a Career with a Humanities Major.

A GRAVEYARD IN NEW ENGLAND

Although we've spent so much time clearing fields
it seems a plow does little more than scratch
the surface of the land we'd hoped would yield
one hundred pumpkins from the pumpkin patch

and represent a hundredfold increase.
Although we've spent so much time clearing fields
and taken out quite a long lease
on this hacked rim of the Canadian Shield

only recently has it been revealed
it's not just in our beds lovers must bundle.
Although we've spent so much time clearing fields
it seems we've simultaneously trundled

granite blocks, boulders, and boundary terms
into a single tract where we've now sealed
their fates and are quite bent on holding firm
although we've spent so much time clearing fields.

—*Paul Muldoon*

"One of the things the students do is choose a famous humanities major and write about that person," he said. "Many students are first-generation and bringing the weight of their family tradition with them to the classroom. If they know that someone like John Legend studied literature and made a really great career, they're, like, 'O.K.!'" His office keeps a growing list of famous people and pushes it, by e-mail, during the period when students sign up for their courses.

In a quantitative society for which optimization—getting the most output from your input—has become a self-evident good, universities prize actions that shift numbers, and pre-professionalism lends itself to traceable change. In 2019, two deans at Emory, Michael A. Elliott and Douglas A. Hicks, received a $1.25-million grant from the Mellon Foundation to create what they called the Humanities Pathways program, focussed on career preparedness. ("Faculty learn to integrate into their syllabi elements to make students conscious that what they're learning will help them with what potential employers are looking for," Peter Höyng, a German-studies professor who co-directs the program, told me.) It arranges Zoom seminars with alumni to help show the way. Almost immediately, the program's co-creators were plucked up into bigger roles: last year, Elliott became the president of Amherst College, and Hicks is now the president of Davidson.

"When I was a graduate student, in the nineties, the New York *Times* ran a series of magazine stories about major literary theorists, because they were seen as being central," Elliott told me from his new office. "Now they would be about people working in artificial intelligence or natural-language processing." Students have noticed the change of focus. "They like being part of vibrant debate and discussion—it's one reason we continue to see strong enrollments around Black studies," Elliott said.

At A.S.U., the English department has been wondering whether even to keep calling itself the English department. "More and more students come to the discipline not necessarily to take courses in literature," Devoney Looser, a professor and an Austen scholar, told me. They're curious about creative writing, or media studies, or they follow other beacons. A few hundred yards from the department's building, which has only two classrooms of its own, looms the business complex—two wings with terrazzo floors, sky bridges, fountains, and wall placards that say things such as "VISION: WE TRANSFORM THE WORLD"—and comparisons are hard to avoid. " 'Branding' makes a lot of people uncomfortable, and English professors are not typically a group that embraces the marketplace," Looser said. "But this is a moment where we might be in a position to reimagine ourselves."

Some humanities departments at A.S.U. have gathered into schools of loose affiliation, following a fashion for "unbundling," or breaking departmental barriers to let students mold study to their needs. "The idealistic part is: Can we reach people who might otherwise not get any higher education? The vulgar part is: Can we monetize the bits and pieces?" Catherine O'Donnell, a history professor, said. "Everyone is going to be hoisted on this petard, because, as we instrumentalize higher education, students question the whole bundling of a B.A.: Is a college education 'worth' it? Is a humanities degree 'worth' it? The humanities are going to be the little bird on the hippo"—an afterthought trying to balance on other educational goals.

For many students, the humanities already are the little bird. Tiffany Harmanian, a senior at A.S.U., is premed, with a neuroscience major ("I come from a family of doctors—I'm Middle Eastern!" she told me), but minors in English and founded a student organization called the Medical Humanities Society. Growing up, she lived in novels and poetry. But it hadn't occurred to her to go all in as an English major while being premed. "People involved in the humanities may not even need to go to school for what they're wanting to do," she said; she didn't see what studying "The Waste Land" had to do with making it as a poet. "Also, because of the world we're living in, there's this desperation for being able to make money at a young age and retire at a young age," she added.

I asked her what she meant.

"A lot of it has to do with us seeing—they call them 'influencers' online," Harmanian said, pronouncing the word slowly for my benefit. "I'm twenty-one. People my age have crypto. People have agents working on their banking and trading. Instead of working nine to five for your fifteen-dollar minimum wage, you can value your time." She and her peers had grown up in an age that saw the lie in working for the Man, so they were charging out on their own terms. "It's because our generation is a lot more progressive in our thinking," she told me.

For years in the United States, high culture—or, more precisely, the idea of high culture—was kept aloft with help from Cold War coffers. During the fifties and sixties, the Congress for Cultural Freedom, a C.I.A.-backed anti-Communist organization, notoriously funded literary and ideas magazines with sympathetic allegiances. Other ventures were less direct. Beginning in the forties, the U.S. government mounted exhibitions of American art, and the State Department later bankrolled jazz tours overseas. The idea was: they don't swing in Sovetsk.

It is hard to separate the effects of support for cultural endeavors from the effects of increasingly widespread college education. But, for years, there was little reason to. Through the second half of the twentieth century, the opening up of the university to the outside world and the work valued in that world aligned. Being able to appreciate a Thelonious Monk record or a Miller play or the wild sprawl of a Pynchon novel was a widely held objective. The concept of "the canon" is a mirage—there's no single list handed down from the mountain—but the idea of shared knowledge of challenging art is powerful, and by mid-century it had been framed as a route to upward mobility. The French sociologists Pierre Bourdieu and Jean-Claude Passeron coined the term "cultural capital" to define the inherited or acquired cultural knowledge that makes movement and advancement easier in a field of society, and by the sixties, in America, that kind of wealth was newly open for the claiming. In 1962, Nichols and May, the aspirational university-humor act, performed for President Kennedy alongside Marilyn Monroe. In 1964, "My Fair Lady"—a verbally dense musical of transformation through upward acculturation—grossed several times as much in cinemas as "A Hard Day's Night."

In other contexts, though, the government's investments could be seen as having backfired. Most institutional-opposition movements of the past sixty years, from Vietnam protest to today's defund-the-police efforts, have been amplified on campuses. That's partly because fields like literature and history teach close, fact-based study and critical analysis with the goal of pulling up the rug to understand what's going on beneath. When students graduate and seek changes in broader society, they carry those practices with them. If they're young, their language is still the current language of the university, so the causes bounce back to professors and students at a convivial angle. That feedback loop is partly how youth movements grow.

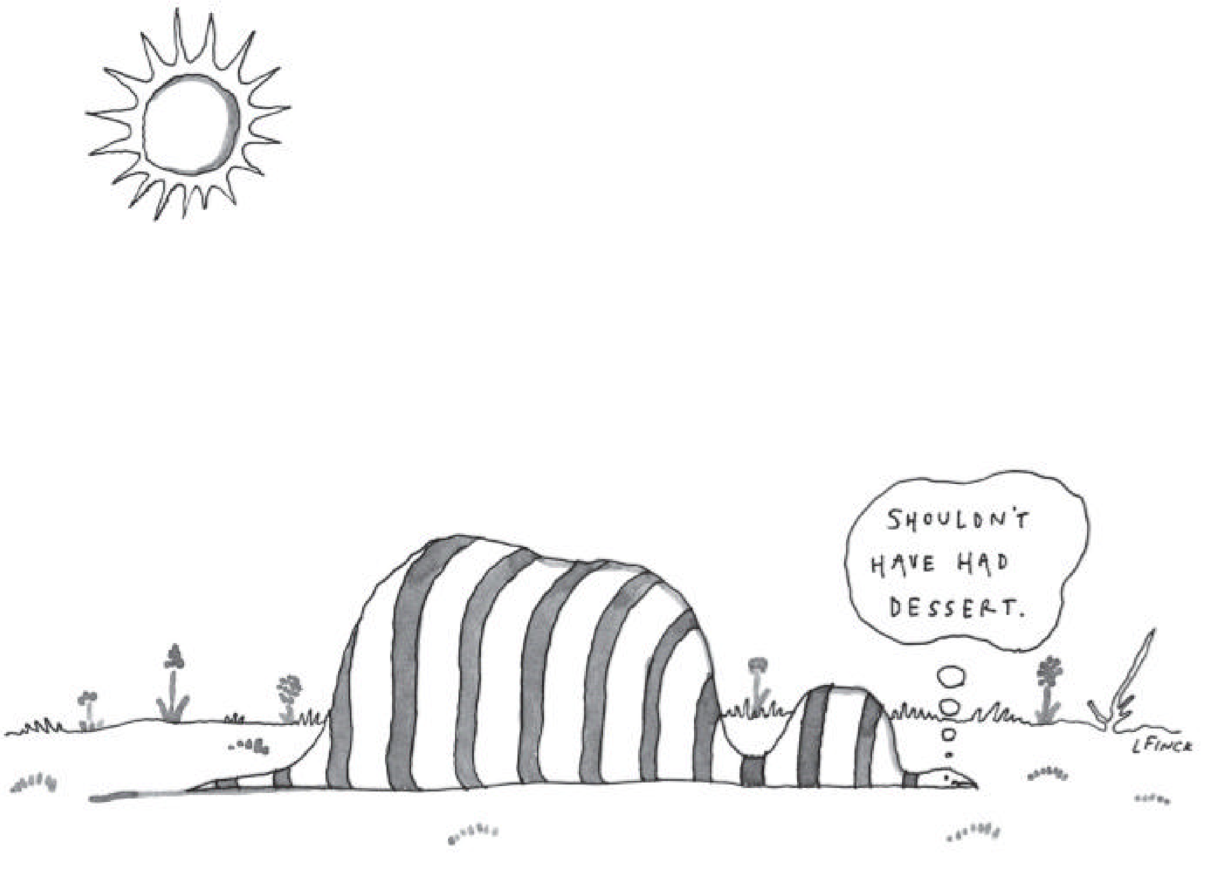
Some scholars observe that, in classrooms today, the initial gesture of criticism can seem to carry more prestige than the long pursuit of understanding. One literature professor and critic at Harvard—not old or white or male—noticed that it had become more publicly rewarding for students to critique something as "problematic" than to grapple with what the problems might be; they seemed to have found that merely naming concerns had more value, in today's cultural marketplace, than curiosity about what underlay them. This clay-pigeon approach to inquiry struck her as a devaluation of all that criticism—and art—can do.

Others, though, suggest that the humanities' loss of cultural capital has been hastened by the path of humanities scholarship itself. One theory is that the critical practices have become too specialized. Once, in college, you might have studied "Mansfield Park" by looking closely at its form, references, style, and special marks of authorial genius—the way Vladimir Nabokov famously taught the novel, and an intensification of the way a reader on the subway experiences the book. Now you might write a paper about how the text enacts a tension by both constructing and subtly undermining the imperial patriarchy through its descriptions of landscape. What does this have to do with how most humans read? Rita Felski, whose book "Uses of Literature" is studied in Adams's A.S.U. class, has argued that the professional practice of scholarship has become self-defeatingly disdainful of moving literary encounters. "In retrospect, much of the grand theory of the last three decades now looks like the last gasp of an Enlightenment tradition of *rois philosophes* persuaded that the realm of speculative thought would absolve them of the shameful ordinariness of a messy, mundane, error-prone existence," she wrote. "Contemporary critics pride themselves on their power to disenchant." The disenchantment, at least, has reached students. When I was in college—not terribly long ago—a life in letters seemed one of the lower ridges of Olympus. Speaking from a sample size of one, I can report that a shift in perception is noticeable. At Harvard and A.S.U., several students inquired with furrowed brow about my prospects, whether I was going to be O.K. Especially after years of grim stories about publishing, the shine has come off.

Bring back the awe, some say, and students will follow. "In my department, the author is very much alive!" Robert Faggen, a Robert Frost scholar and a longtime literature professor at Claremont McKenna, told me, to account for the still healthy enrollment he sees there. (There are institutional outliers to the recent trend of enrollment decline; the most prominent is U.C. Berkeley.) "We are very concerned with the beauty of things, with aesthetics, and ultimately with judgment about the value of works of art. I think there *is* a hunger among students for the thrill that comes from truth and beauty."

If this is so, the trail to studying truth and beauty must still be blazed; it can't come from walking backward. That's challenging, many scholars worry, without the national mandate that the humanities had fifty years ago. "My big beef with the Obamas was that every sentence out of their mouth was STEM, STEM, STEM, STEM—and then the arts, nothing in between," Ayanna Thompson, a Shakespeare scholar who directs A.S.U.'s Arizona Center for Medieval and Renaissance Studies and the RaceB4Race conference series, told me. "We never heard anything from Trump, and we're not hearing anything from Biden, either."

One afternoon, I walked across the Charles River, past the Harvard Business School, to Western Avenue, where, two years ago, the university opened a five-hundred-and-forty-four-thousand-square-foot Science and Engineering Complex, which reportedly cost a billion dollars. Just inside the entrance, an enormous painted wall display read "OUR RESEARCH: TACKLING SOCIETAL CHALLENGES." Placards noted



that the complex, in the spirit of the Ark, could "maintain critical research activities" during the grid loss and floods of a hundred-year storm. I tapped a jumbo touch screen on a wall, and a keyboard appeared, offering directions. I passed a digital triptych by the art collective BREAKFAST, and hundreds of magnetic disks traced my profile in a sequinlike cascade of mirrored light.

The new complex houses Harvard's engineering, bioengineering, computer-science, and data-science departments. In the basic sense, it was conceived in 1997, when the university announced the acquisition of fifty-two acres of land in the Boston neighborhood of Allston. But it wasn't until after Larry Summers became president, in 2001, that a vision for that land was made public.

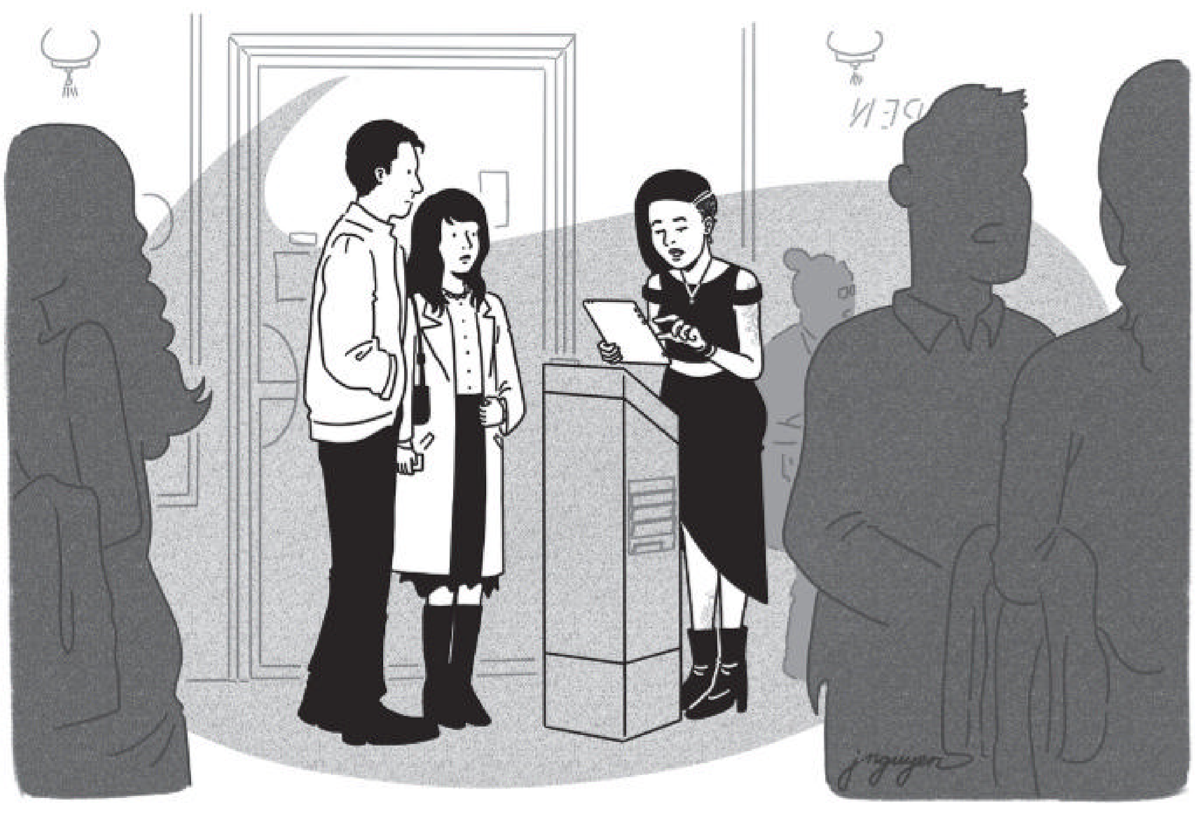
Summers imagined "the next Silicon Valley, with all that it means and all that it brings," with an emphasis on industrial opportunities for biomedical research. In "Beyond the Ivory Tower" (1982), Derek Bok, Harvard's president through the seventies and eighties, had warned about "commercial ventures" posing "dangers for the quality of research and even for the intellectual integrity of the university itself." At the time, such doubts prevailed. When, in 1980, the gene-transcription pioneer Mark Ptashne was induced to launch a bioengineering company from his professorship, storm clouds rose around him. Summers's appointment—like A.S.U.'s presidential appointment, the following year, of the tech-policy specialist Michael Crow—signalled an openness to business with the new global private sector. In 2004, Harvard hired a "chief technology development officer" to aid in the commercialization of research. In 2010, Xi Jinping withdrew his only child from college in China and enrolled her at Harvard—a gesture that affirmed the university's arrival as a hub of Swiss disinterest on the byways of industrial diplomacy. In 2012, Harvard and M.I.T. founded edX, which markets branded courses online. The university promotes its Science and Engineering Complex as the "most significant new building constructed by Harvard in a generation."

That was certainly the impression I got as I walked through the complex's eight floors and open hallways, arranged around a central vault. The materials and the color palette suggested the space station in "2001." The ground floor, flecked with vivid-red Fritz Hansen swan chairs, comprised classrooms, a state-of-the-art auditorium, and a workshop of whizbangs and doodads called the Makerspace. Up some floating staircases, a landing was arrayed with Ping-Pong and foosball tables and a snuggery of orange Knoll womb chairs. One floor up from that, half a dozen Peloton bikes faced a giant window overlooking a bioscience mural by the artist Sophy Tuttle. I didn't climb aboard and pedal in my jeans, as must have been the hope, in part because I felt quite exercised already. Wandering the building's hallways, a proud dean told *Harvard Magazine*, is a six-mile walk.

On the top floor, I passed a student and a professor in a hoodie talking about job placement at Toyota. I visited the complex's library, filled with volumes such as "The Metaverse: And How It Will Revolutionize Everything." Nearby, a row of large booths containing desks were hung with yellow curtains ready to be whisked across for privacy, like the partitions in a massage parlor. Sleek glass whiteboards lined the common spaces, and the labs were glass-walled, too, affording passersby like me a glimpse of dummy torsos draped in bionic garments, and prototypes for "a colony of robotic bees." I followed a gaggle of STEM students to the ample gardens. As a soft drizzle began to fall, I got on a zero-emissions shuttle blaring the Talking Heads song "Wild Wild Life" and took a rollicking ride back to Harvard Square. In school, I had been friendly to the sciences, but I had majored in the humanities, and since then I'd never had a moment's real regret. After half an hour in this new complex, I was prepared to do it all again and choose the interesting, vivifying life path of an engineer.

Students pick up on the emphasis. At the point when, in 1996, the university opened a refurbished humanities building, humanities enrollment was rising; now a new mandate is clear. "Harvard is spending a huge amount of money on the engineering school," a sophomore mechanical-engineering major said at dinner in the dorms one evening. It was curry night in Pforzheimer House, and a dozen students were chatting at a long table, finishing their meals. "Mark Zuckerberg just gave another half billion dollars for an A.I. and natural-intelligence research institute, and they added new professorships. The money at Harvard—and a lot of other universities, too—is disproportionately going into STEM." According to the *Harvard Crimson*, which conducts an annual survey, more than sixty per cent of the members of the class of 2020 planning to enter the workforce were going into tech, finance, or consulting.

"I think that the presence of big tech and consulting firms on campus is a



"Do you have a reservation, or do you want to stand in the corner and stare daggers at me for two hours?"

• •

big part of people's perception that you can't get a job in the humanities," Hana, a senior in integrative biology, chimed in at the table. "Google, Facebook, Deloitte, B.C.G. . . ." She shrugged in exasperation. "They just have access to our campus in a really pervasive way!" The first time she was buttonholed by a consulting firm was freshman year.

And the humanities' desperate efforts to compete, Hana added, merely ceded the terms. "I remember being excited about taking a Folklore & Mythology class," she said. "But the people in the department were marketing it, saying, 'Oh, well, you know, consulting is just 'telling a story'—and we have people who study Folk & Myth going into . . . consulting!"

For some, the idea that if the prevailing interests can't be beaten they can be joined is the natural next step in opening up the university. In a bank-gray administrative building called University Hall one morning, Harvard's dean of arts and humanities, Robin Kelsey, an art historian with a tidy tam of silvery hair, told me that his hope was to "disaggregate what departments do" to match students' interests in the world beyond the gates. "Our departmental structure formed between 1890 and 1968," he said. Since then, nothing had changed in departments, even as big changes were under way in life. Outside the window, twin lampposts carried banner portraits of alumnae in the sciences. "IMPACT," one said. "INNOVATION," said the other.

One idea about the national enrollment problem is that it's actually a counting problem: students haven't so much left the building as come in through another door. Adjacent fields aren't included in humanities tallies, and some of them are booming. Harvard's history-of-science department has seen a fifty-per-cent increase in its majors in the past five years. The humanities creature who recites Cavafy at parties might fade away, but students are still getting their vitamins. There's a lot of ethics in bioethics, after all.

Echoing the work at A.S.U., Kelsey regards the drifting of humanities skills into other fields as the way of the future. (This mixing has a pecuniary benefit, too: humanities deans like Kelsey and Cohen rarely have first crack at big donations, so nesting their divisions' doings in the sciences and the social sciences can help with funding.) Instead of determining majors by how professors organize themselves, why not also match majors to topics that resonate in the current moment, like climate change and racial justice? I wondered aloud whether that was a moving target—the concerns in our headlines today are different from those fifteen years ago—but Kelsey insisted that some causes were here to stay. "I would like to see us come out with better platforms for studying the environmental humanities, migration and ethnicity, and the medical humanities," he said.

And the techie-fuzzy collaborations have good models. One afternoon, I visited the chair of Harvard's comparative-literature department, Jeffrey Schnapp, who is involved in Kelsey's disaggregation. Schnapp, a shaved-headed man with a trim gray Vandyke and two small rings in his left ear, sat me at a round table in an office filled with industrial-design artifacts. "I always thought that the models of the humanities that we inherited were open for expansion and innovation," he said. Behind him, in a corner, lay several trophies from his years racing motorcycles on the West Coast.

Schnapp was a Dante scholar and, as a young professor, had helped lead the Dartmouth Dante Project, a vast textual database that was an early triumph of the so-called digital humanities. At Stanford, where he taught from 1985 to 2009, he founded the Stanford Humanities Lab, in part to apply computational techniques to literary and historical study. When Harvard brought him East, he founded a version of it called metaLAB—a project that he saw as true to his scholarly origins. "Medieval literary culture was not 'literary' in the way that we understood it in the nineteenth century, when printing became an industry. It was polychrome," Schnapp said.

To show what he meant, he picked up a brightly colored paperback, which he co-wrote, called "The Electric Information Age Book." "This is a book on the history of experimental paperbacks, like Marshall McLuhan's 'The Medium Is the Massage,'" he said, and leafed through, revealing pages of wild typefaces and pictures. Another volume he had co-written used "little microsessays connected to the future of libraries and library furnishings," and was published with a deck of playing cards. " 'Making' can mean writing books, but it can also involve other forms, such as building software platforms infused with values from the humanities,” he said, and flipped over the bottom card.

To fund metaLAB, Schnapp has had to be strategic about adapting projects to what he called “research incentives”—though the techie cast of his work helped. “There’s no commensurability of scale between the National Science Foundation and the National Endowment for the Humanities,” he said. They weren’t even close. “A friend of mine likes to point out that the total budget of the N.E.H. is the same budget as just the Vienna State Opera.”

In 1980, on average, state funding accounted for seventy-nine per cent of public universities’ revenue. By 2019, that figure was fifty-five per cent, and governors such as Ron DeSantis, in Florida, are applying new pressure for funding cuts. Confronted with those shortfalls, public universities have two options. They can strip down academics, and face what that diminishment leads to. Or they can run to the market and surf its waves.

Because the state of Arizona cut higher-education funding by more than half between 2008 and 2019, A.S.U. has gone the market route. It invested in its online education, which gained prestige when the school figured out how to give remote students credited laboratory time. (The solution was a system of intensive camps designed by Ara Austin, an assistant professor who took college courses online after a traffic accident and later chafed at such programs’ second-tier, cash-cow status.) Diplomas are the same whether earned online or on site, and the extra tuition, plus donor funds, fills A.S.U.’s sails. In 2007, the university received twenty-eight per cent of its operating budget from the state; last year, it was only nine per cent, for a budget of $4.6 billion. “We are operating in full enterprise modality,” the president, Michael Crow, announced. To put it differently: many of the greatest American public universities increasingly run as private businesses.

A side effect of A.S.U.’s remote-learning boom has been improvement in its humanities numbers. On paper, the number of English majors at A.S.U. has grown, even as the number of students in English classrooms has dropped. Several professors insisted to me that they really, truly felt no preference for online or on-site students—but that they did notice a difference in the demographics of who showed up onscreen.

“These are people in their thirties and forties who have been stay-at-home parents, or they work. And they are *committed* to the humanities—they have an idea about the value of liberal-arts education,” Ayanna Thompson, the A.S.U. English professor, told me. Partly, it was a cohort thing, given that the older students represent the views of older generations. But it was also a matter of life experience. The university has a partnership with Starbucks, which pays for its baristas to earn bachelor’s degrees online (a recruitment tool for the coffee company and a revenue source for the school), and what someone who has been in the grind of life wants to learn most isn’t necessarily linear algebra.

“Personally, I love my English major, and it really bums me out when ninety per cent of the people I talk to have input that’s negative!” McKenna Nelson, who enrolled remotely at A.S.U. while working at a Starbucks in Southern California, said. “I don’t think life should revolve around money—I’d rather go to work happy.” (She wants to teach.)

Surprisingly, many in the future biz concur. A funny thing about the market mentality, they note, is that it knows only what’s judged to have future value right now. Career studies have shown that humanities majors, with their communication and analytical skills, often end up in leadership jobs. To that extent, the value of the educated human touch is likely to hold in a storm of technological and cultural change.

“Imagine if you had a voice assistant that could write code for you, and you said, ‘Hey, Alexa, build me a Web site to sell shoes,’” Sanjay Sarma, a professor of mechanical engineering at M.I.T., told me on the phone. (Immediately, he pulled the receiver away to rebuff a device in the room: “Shut up, Alexa! No! No!”) “That’s already happening. It’s called ‘low-code.’” There has been much hand-wringing about ChatGPT and its ability to replicate some composition tasks. But ChatGPT can no more conceive “Mrs. Dalloway” than it can guide and people-manage an organization. Instead, A.I. can gather and order information, design experiments and processes, produce descriptive writing and mediocre craftwork, and compose basic code, and those are the careers likeliest to go into slow eclipse.

“I think the future belongs to the humanities,” Sarma said.

In a fit of inspiration or desperation, the Harvard English department has started handing out tote bags with slogans such as “CURRENTLY READING” printed on them. (“They’re trying,” a senior told me.) The department has set up alumni panels, and embraced change. As of this year, it is possible to receive a degree in English from Harvard without taking a course dedicated to poetry. There are plentiful offerings in creative writing—in the age of the “maker economy,” the idea goes, students want to send material into the world—and forays into new media. Stephen Greenblatt, one of the highest-ranking humanities professors by the stripes and badges of the trade, told me that he’d come to think that literary students had a future somewhere other than the page.

“It happens that we do have a contemporary form of very deep absorption of the kind comparable to literary study,” he said. We were sitting in his paper-piled office. “And that is long-form television. ‘The Wire,’ ‘Breaking Bad,’ ‘Chernobyl’—there are dozens of these now!” He rocked back to rest his feet on the edge of his desk. “It’s a *fantastic* invention.”

Greenblatt popped open a green egg of Silly Putty and began to knead it vigorously. For a moment, he seemed lost in thought.

“ ‘Better Call Saul,’ ” he added.

He liked to think of Shakespeare reading “Don Quixote,” in 1612, and marvelling at this new narrative form: the novel! So it was today, with “Better Call Saul.” He wondered whether literature departments should do more with TV.

And yet the blissful English students whom I talked to—there were many—surprised me with their indifference to the things that grownups higher in the food chain said they wanted. Ashley Kim, a junior, had been an intended economics major with a falling-asleep-in-class problem. When she kept emerging happy and alert from Tara Menon's 9 A.M. City Fictions course, she switched to English. "It isn't just people trying to learn something to get a job," she explained.

Jeffrey Kwan, a physics and mathematics major down the hall from Kim, takes one English class a semester. "I get so much out of English because it's the professor telling you what they thought about the work, as opposed to skills you have to learn," he said. But he would never major in it, he told me, because he felt underqualified. "I try to figure out when to insert myself into the discussion."

Kim concurred. "When I first joined the English department, I felt seen, but I also felt, Maybe I don't belong," she said. She'd gone to a magnet public school in New Jersey and felt a step behind the sanguine private-school kids in knowing how to perform her interest in the classroom.

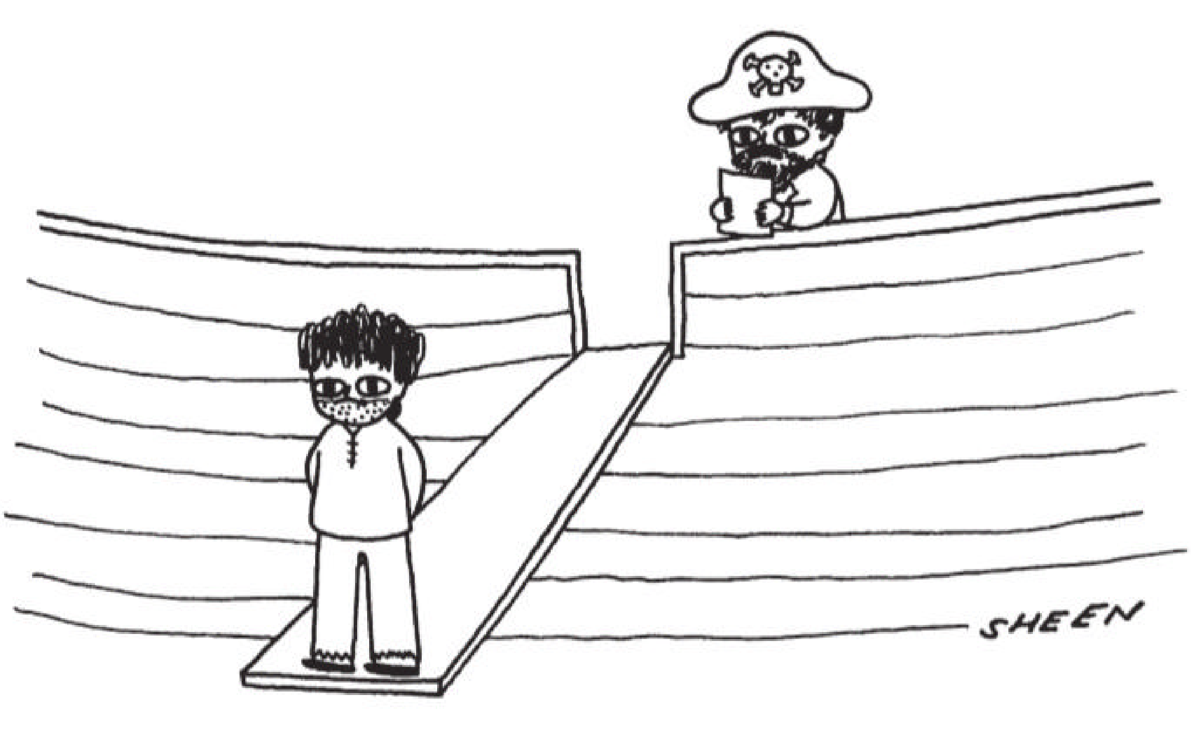
That kind of sorting is often invisible at first. "It definitely is a very specific community in the humanities," Rebecca Cadenhead, an upperclassman from Westchester County, told me. "People in this group are usually from the Northeast, are usually upper middle class, are usually white, honestly, and are a certain way." That way had a fashion element: chunky statement shoes (Doc Martens, Blundstones), baggy trousers (mostly Carhartt), and vintage sweaters. "There are many people of color and many low-income people in the humanities, but in general it's people with that vibe, and we all know each other."

Cadenhead started out in applied mathematics—she'd been urged toward science in high school—but ended up a philosophy major, adding African American studies for fear that "the philosophy department would not have as many nonwhite thinkers." Yet she worried that her path remained illegible outside the Blundstone circle. And, for students of color, it seemed to her, the weight of being judged less academic for studying the humanities was multiplied. "Sometimes I have a concern that when people are encountering me they might assume that I'm here because of affirmative action," she said. "A lot of people of color here at least initially gravitate towards the sciences, because they think they'll be perceived as more intelligent if they do."

Hearing students and teachers discuss their accommodations to the new order of things reminded me of the gag in which Charlie Chaplin and a bellhop chase each other endlessly through a revolving door. Everyone agrees that the long arc of higher education must bend toward openness and democratization. And universities, in an imperfect but forward-inching way, are achieving the dream. In 1985, twenty per cent of Harvard students identified as members of a minority ethnicity (a record then); now it's more than fifty per cent. The number of entering students who are in the first generation in their families to attend college has risen to nearly twenty per cent. International enrollment has climbed. At A.S.U., you can be a barista in rural Alabama and get part-time access to a first-rate education for cheap. The way in which diversity of experience is understood to enrich study, and in which diverse study is understood to enrich society, is a product of work done in the humanities. Harvard and A.S.U. professors to whom I spoke took pride in their institutions' democratizing feats.

It is only slightly awkward, then, that this opening of the field has nudged educational incentives away from humanities study. The students whom universities most seek are the ones likeliest to require immediate conversion of their degrees into life change. They *need* the socioeconomic elevator that college promised them. And they need it the instant they lose institutional support.

During the postwar swell of public funding for education, conveyances picked up humanities students right where their B.A. diplomas left them: they could go to graduate school, and on to a stable, rewarding career in teaching and writing; or they could leave the academy for arts-and-letters careers plainly valued by society and at least remunerative enough to sustain a modest middle-class life. Today, the academic profession of the humanities is a notoriously haywire career track, with Ph.D. programs enrolling more students than there are jobs, using them for teaching, and then, years later, sending them off with doctoral gowns and no future in the discipline. (In 2020, the Survey of Earned Doctorates found that less than half of new arts and humanities Ph.D.s graduated with a job—any job—and the odds are vanishing even with élite credentials: of fifteen people who began Princeton's English Ph.D. program in 2012, only two have landed on a tenure track.) Although the public-funding arc and the university-opening arc once grew in happy parallel, intensifying the value of humanistic cultural capital while



"Take one step forward if you've ever committed mutiny on a pirate ship."

expanding access to it, those curves have now crossed.

It also happens that low-access or first-generation college students are likeliest to be underrepresented in, and nudged toward, STEM fields. If they do wander into a humanities course when they arrive, they can feel—like Kim—that the milieu is red-shifted away from them. A telling data point here is one of the most seemingly promising. Humanities enrollment is down among bachelor's, master's, and doctoral students, but it is increasing among students seeking two-year associate's degrees. And it is increasing among high-school students taking A.P. courses. High schoolers, in fact, now take over twenty per cent more humanities A.P. tests than tests in STEM every year. The loss of humanities numbers isn't happening in the collegiate pipeline, in other words. It is happening when these students walk through the university gates.

Robert Townsend, the co-director of the Humanities Indicators, attributed the drop-off to acceleration tracks themselves—another tool designed to help low-access students. Smart humanities-oriented kids are taking the A.P.s, or studying English or history at community college, so, by the time they make it to four-year colleges, they've placed out of humanities requirements: classes in which students often fall in love with the field. In that way, too, students whom the universities are keenest to recruit are pre-sorted away from the humanities. And, for global students, the incentives are more acute.

Sazi Bongwe, a Harvard freshman from Johannesburg, collaborated with three friends in high school during the pandemic on a magazine called *Ukuzibuza*. On arriving in Cambridge, he had to consider that the F1 visa, for international students, allows for a stay of a year in the U.S. after graduation—except for majors in a STEM field, in which case one year of grace becomes three. Bongwe had come to Harvard with thoughts of a humanities major. But, like several international students with whom I spoke, he worried that the choice would be naïve.

"Am I just putting myself in a position where, in four years' time, I'm going to be earning significantly less money than people I went to school with?" he asked. For students maintaining ties to countries with struggling economies—where the dollar goes far, and where their arrival at places like Harvard or A.S.U. carries the hopes of their communities—the moral and financial calculi are more than personal.

In previous eras, these pressures were counterbalanced by investment in the culture of the humanities. Now universities increasingly depend on the markets and their short-term goals. In Harvard Square one afternoon, I met Saul Glist, a tall history-and-literature major. Glist had been drawn toward his field, he said, because in his humanities classes he felt less like a student absorbing information and more like a young thinker. If he didn't keep seeing statistics about the humanities crisis, he'd never have known it existed, he told me.

"I think it's really a question of what the university is investing in," Glist said. "When you're telling touring students, 'This is our shiny new building that is the jewel of our expanding campus,' and are making no visible investments in the humanities, that creates a narrative." He believed that universities were all too happy to accept plummeting humanities enrollments, because the story of decline created its own vortex—one that drew away duties that the university, in its present pursuit of growth and revenue, might prefer not to deal with.

Some have resigned themselves. "The age of Anglophilia is over," one late-career English professor told me. "It's like thinking back to when Latin was the center of the world—the memorization of lines and competing with your friends at Oxford and Eton in quips." The great age of the novel had served a cloistered, highly regionalized readership, but that, too, had changed. "I don't think reading novels is now the only way to have a broad experience of the varieties of human nature or the ethical problems that people face," he said.

But Glist resisted the narrative of diminishment. "The question we should be asking is not *whether* the humanities have any role in our society or the university in fifty or a hundred years!" he exclaimed. "It's what do investments in the humanities look like—and what kind of ideal future can we imagine?"

Not long ago, Justin Kovach, the A.S.U. senior studying data science, decided to apply to graduate school in literature. "It would be really *cool* to study English literature really specifically," he told me one afternoon. "I thought about creative writing, but I think I'd rather do literature."

At A.S.U., in the humanities division, there have been some early signs of real improvement. The number of majors on campus was slightly increasing after almost a decade of near-constant decline. Jeffrey Cohen had the pleasure of seeing his marketing campaign begin to bear fruit. "I do wonder if it's because students got more involved in humanities during COVID," he told me. But, just to be sure, a new interdisciplinary major would start in the fall: Culture, Technology, and Environment. "Those are the three things that young people always have on their minds," he explained.

Suzzanne Bigelow, one of Brandi Adams's students in English 206, met me at a café after class one day to report on her work. She had started college as a psychology major on a volleyball scholarship, but felt lost. "I was doing an application for a Hispanic scholarship, and one of the questions was 'Where do you see yourself in ten years?' " she said. "And I was, like, I don't *know*."

Last year, she started fresh, as an English major. "My future dream career would be to be a novelist," she said, then added, "I haven't told that to anyone yet." Her favorite novel is "Things Fall Apart," by Chinua Achebe, but recently she was reading "The Human Stain," by Philip Roth, and it inspired her to try something of her own.

"He's an amazing writer, and I feel like, How am I going to be in comparison to that?" Bigelow told me. "Which is obviously unfair, because he's one of the greatest American novelists, and who am I? Just some English major at A.S.U." She looked at me slyly, then glanced away. "But I've been practicing more by myself. And I don't know. You never know what's a possibility," she said. ♦

A REPORTER AT LARGE

THE PRICE OF BELIEF

The unravelling of Wirecard, the biggest fraud in German history.

BY BEN TAUB

Late in the spring of 2020, Jan Marsalek, an Austrian bank executive, was suspended from his job. He was a widely admired figure in the European business community—charismatic, trilingual, and well travelled. Even at his busiest, as the chief operating officer of Wirecard, Germany's fastest-growing financial-technology company, he would assure subordinates who sought a minute of his time that he had one, just for them. "For you, always," he used to say. But he would say that to almost everyone.

Marsalek's identity was inextricable from that of the company, a global payment processor that was headquartered outside Munich and had a banking license. He had joined in 2000, on his twentieth birthday, when it was a startup. He had no formal qualifications or work experience, but he showed an inexhaustible devotion to Wirecard's growth. The company eventually earned the confidence of Germany's political and financial élite, who considered it Europe's answer to PayPal. When Wirecard wanted to acquire a Chinese company, Chancellor Angela Merkel personally took up the matter with President Xi Jinping.

Then, on June 18, 2020, Wirecard announced that nearly two billion euros was missing from the company's accounts. The sum amounted to all the profits that Wirecard had ever reported as a public company. There were only two possibilities: the money had been stolen, or it had never existed.

The Wirecard board placed Marsalek on temporary leave. The missing funds had supposedly been parked in two banks in the Philippines, and Wirecard's Asia operations were under Marsalek's purview. Before leaving the office that day, he told people that he was going to Manila, to track down the money.

That night, Marsalek met a friend, Martin Weiss, for pizza in Munich. Until recently, Weiss had served as the head of operations for Austria's intelligence agency; now he trafficked in information at the intersection of politics, finance, and crime. Weiss called a far-right former Austrian parliamentarian and asked him to arrange a private jet for Marsalek, leaving from a small airfield near Vienna. The next day, another former Austrian intelligence officer allegedly drove Marsalek some two hundred and fifty miles east. Marsalek arrived at the Bad Vöslau airfield just before 8 P.M. He carried only hand luggage, paid the pilots nearly eight thousand euros in cash, and declined to take a receipt.

Philippine immigration records show that Jan Marsalek entered the country four days later, on June 23rd. But, like almost everything about Wirecard, the records had been faked. Although Austrians generally aren't allowed dual citizenship, Marsalek held at least eight passports, including diplomatic cover from the tiny Caribbean nation of Grenada. His departure from Bad Vöslau is the last instance in which he is known to have used his real name.

The rise of Wirecard did not occur in a vacuum. Rather, it reflected a convergence of factors that made the past half decade "the golden age of fraud," as the hedge-fund manager Jim Chanos has put it. In the aftermath of the 2008 financial crisis, governments sought to revive depressed economies, and central banks suppressed interest rates, making it cheaper for businesses to get loans. The venture-capital and tech worlds, awash in easy money, developed a culture of selling narratives and vaporware—lofty and sometimes fantastical ideas, with no clear path to implementation. Redditors shared their YOLO trades; offshore crypto exchanges posted their own tokens as collateral for multibillion-dollar loans. In late 2021, amid the investing frenzy, a CNBC

Wirecard was embraced by the German élite,

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who saw it as a challenge to Silicon Valley. But a reporter suspected that behind the façade were lies and links to Russian spies.

ILLUSTRATION BY HAROL BUSTOS

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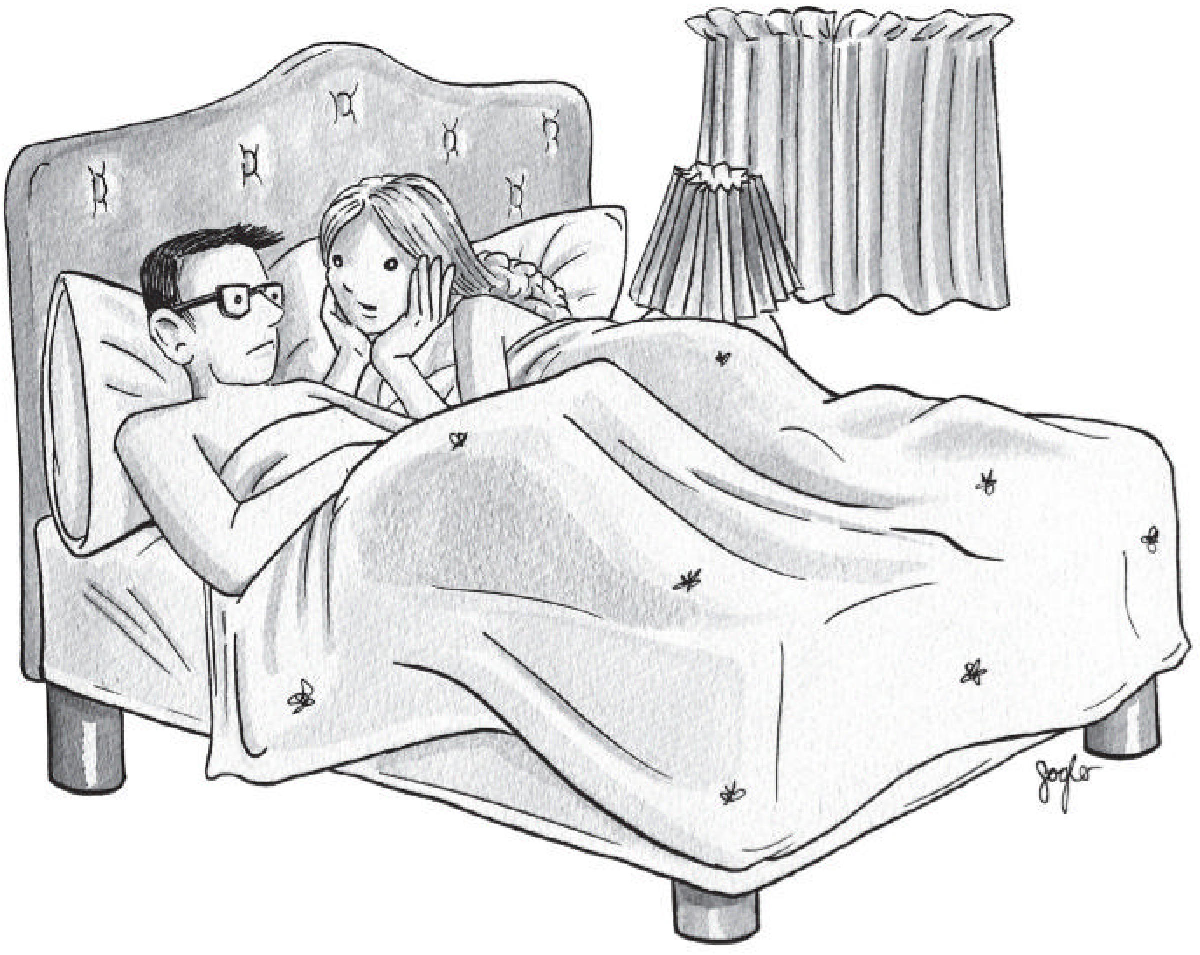


"Next time, could you not use your podcast voice?"

guest—the author of such books as "Trade Like a Stock Market Wizard" and "Think & Trade Like a Champion," who charges people a thousand dollars a month for "private access" to his market research—recommended a tech company called Upstart, asserting that its earnings were "very powerful" and that the company had "a good-looking name."

"What do they do?" the host asked.

"Uh, excuse me?"

"What does Upstart do?"

"Uh, well . . . I'm, I'm . . . I'm sorry."

"What kind of company is it?"

"Yeah, I'm not . . . You're breaking up," the guest said. (Upstart's share price has since dropped by ninety-five per cent.)

It was against this backdrop that German institutions supported Wirecard. The country's traditional industry is in cars and energy systems—BMW, Volkswagen, Daimler, Siemens. Wirecard represented the nation's challenge to Silicon Valley, its leap into financial technology and the digital era. "German politicians were proud to be able to say, Hey, we have a fintech company!" Florian Toncar, a German parliamentarian, observed. Wirecard's rising stock price was regarded as a sign that the business was dependable, that its critics were clueless or corrupt. The German business newspaper *Handelsblatt* called Wirecard's C.E.O. a "mastermind" who had "come across the German financial scene like the Holy Spirit." But it was not regulators or auditors who ultimately took the company down; it was a reporter and his editors, in London.

Dan McCrum often jokes that his marriage was a minor fraud—his wife met him when he was a banker, but she ended up with a journalist instead. When McCrum was in his mid-twenties, he worked at Citigroup in London for four years, "which was long enough to look around the room and think, Hang on, there's nobody I want to *be* here," he told me. One evening, he went out for dinner with a group of colleagues "and everybody was bitching about their jobs," he said. A young woman suggested that they go around the table and share their real aspirations, most of which required years of training or an advanced degree. "And when it came to me, without hesitation, I was, like, 'I'd be a journalist,'" he said. "And the woman who had asked the question just looked at me as if I were a bit stupid and said, 'Well, you know, you can just *do* that.'"

The timing was serendipitous; eighteen months later, in July, 2008, as a fledgling reporter at the *Financial Times*, McCrum was sent to New York, where he witnessed the collapse of Lehman Brothers and the chaos that ensued. By the end of the year, Bernie Madoff's Ponzi scheme had unravelled, leaving investors some sixty-five billion dollars poorer. "It felt as if we were through the looking glass," McCrum recalled. "If a fraud of that magnitude was hiding in plain sight, then anything could be fake."

In the summer of 2014, McCrum was casting about for story ideas in London when a hedge-fund manager asked him, "Would you be interested in some German gangsters?" He added, "Be careful."

In 2000, a year after Wirecard was formed, it nearly imploded—partly because it had hired Jan Marsalek to oversee its transition to the mobile era. "The first warning sign was when the company's systems crashed and Wirecard's engineers traced the problem to Marsalek's desk," McCrum later wrote, in a book called "Money Men," from 2022. "In an 'accident,' he'd routed all of the company's internet traffic through his own PC, rather than the dedicated hardware in the server room—a set-up ideal for snooping." But Marsalek, a talented hacker, couldn't be fired; his job was to rebuild from scratch the software that the company used to process payments, "and the project was too important and too far along to start over with someone new."

Around the same time, a German businessman named Paul Bauer-Schlichtegroll was trying to move into online payments, focussing on pornography. There was no shortage of demand, but it was the end of the age of dial-up Internet, and Bauer-Schlichtegroll's payment systems were clunky. When he learned that Wirecard could process credit- and debit-card transactions, he offered to buy it. Wirecard refused. But the company was struggling, and after its offices were burglarized it became insolvent. Bauer-Schlichtegroll bought what was left of it for half a million euros.

In the early two-thousands, Wirecard's company culture resembled that of a frat house. Marsalek took new hires for bottle service at night clubs, and sometimes sent clients back to their hotels with models in tow. When Wirecard signed a live-streaming porn service as a client, Marsalek's colleague Oliver Bellenhaus, who often played Call of Duty at the office, hooked up his laptop to a TV and paid for a private session. It was ten-thirty in the morning. "Touch your nose," Bellenhaus and another salesman instructed a topless woman onscreen, to test if the service was really live. The woman complied; the men burst out laughing, and carried on with more orders, as colleagues filed by. "Touch your nose" became a running joke at the office.

Wirecard's new C.E.O. was a tall, somewhat awkward consultant from Vienna named Markus Braun. He lacked Marsalek's charisma and affability, but he claimed to have a Ph.D. in social and economic sciences, which gave outsiders the impression that he was a quiet visionary. Under his leadership, Wirecard expanded its payment processing to the world of online gambling—legal in some jurisdictions, prohibited in many others. Wirecard skirted rules by acquiring companies in other countries and routing payments through them. "By allowing third parties to serve as the primary processor or acquirer, Wirecard is not directly identified" by Visa or Mastercard, a critical investor report later noted. "Some of these partners may ultimately lose their own license, but Wirecard's remains intact."

The core tenet of the business was that for anything to be sold there must be a way to pay. The fewer the options for payment, the higher the fees; the higher the legal risk, the more complex the transaction.

In 2004, Bauer-Schlichtegroll saw an opportunity to transform Wirecard into a publicly listed company, whose shares could be traded on an open exchange. He bought a failing telephone-service provider that was listed on the Frankfurt stock market. With the help of lawyers, Bauer-Schlichtegroll implemented a process known as a reverse takeover, which allowed for listing with less regulatory scrutiny. "Like a parasite devouring its host from the inside, Wirecard was injected into the corporate shell, emerging to walk the stock market in its place," McCrum wrote.

The following year, having raised capital from the investing public, Braun arranged for Wirecard to buy a small German bank, for about eighteen million euros. To observers, it seemed as if Braun had overpaid; the company could have applied for its own banking license for as little as a million euros. But Braun's acquisition procedure—as with the stock listing—let the company achieve the desired outcome while avoiding regulatory scrutiny, which would have likely ended in rejection. By owning a bank, the investor report explained, Braun "created a bridge between online and offline cash." For Wirecard, eighteen million euros wasn't the price of doing business; it was the price of being able to do business at all.

In October, 2006, the United States passed a law that made it illegal to take bets online. The act was an existential threat to Wirecard's business. Most major payment processors cut off their American clients from gambling. Wirecard, however, exploited a loophole: the law allowed "games of skill," which theoretically included poker. In 2007, the company acquired another payments entity, an Irish firm that specialized in online poker, and fired its auditor. That year, Wirecard reported a surge in revenue of sixty-two per cent. Bauer-Schlichtegroll gradually sold his entire stake in the company.

Wirecard had carved out a profitable, if tenuous, operation. But the major poker companies began to ditch Wirecard and its affiliates, to work with better-run businesses; pornography, meanwhile, was now ubiquitous and free. In 2009, although the business was struggling, Braun prepared for investors an unrealistic set of projections that showed a forty-five-degree line of profits and growth, and soon afterward the chief operating officer quit.

Braun appointed Marsalek, who was then twenty-nine, as the new C.O.O. Marsalek sought out new, scammy business partners in the unregulated world of nutraceuticals—açai-berry powder, weight-loss tea. The scheme, McCrum later wrote, "was to get hold of a credit or debit card number by offering 'risk-free' trials, then sting the customer with charges buried in small print that were nigh impossible to cancel." Visa was aggressively shutting down accounts that were associated with fraud, so, according to McCrum, Marsalek spread the payments "over many different Merchant IDs, to keep the number of complaints below the threshold which drew attention." But it wasn't enough: Visa froze Wirecard's accounts, and issued more than twelve million dollars in penalties—facts that Braun withheld from shareholders.

By now, a German investor named Tobias Bosler had discovered irregularities on Wirecard's balance sheet. He eventually suspected that the company was also miscoding illegal gambling transactions as legal ones, so he asked a friend in America to transfer money to a Wirecard-affiliated poker site. "The money went to the poker Web site, but on the monthly statement it showed a French online store for mobile phones," Bosler told me.

In 2010, the U.S. government charged a German man living in Florida, who was linked to Wirecard, with money laundering. (He pleaded guilty to a lesser charge, of conducting an unlicensed money-transfer operation, and has claimed not to know who paid his legal fees.) Wirecard had apparently laundered at least a billion and a half dollars' worth of gambling proceeds, through deliberate miscoding alone, and the German man had transferred to American gamblers some seventy million dollars, with funds originating from Wirecard Bank. When news of the indictment was made public, Wirecard's share price dropped more than thirty per cent. Braun announced a pivot to Asia.

In the fall of 2014, Dan McCrum noticed that Wirecard had bought many small companies in Asia that no one had ever heard of. The official explanation was that the acquisitions had "local strengths," which Wirecard helped to grow on a "synergistic basis." No one seemed to care any longer about the accusations of money laundering in Florida. The company had simply denied any connection, and the investing public had slowly bought into the idea that Wirecard had a wildly profitable Asia division; the firm's stock valuation surged past four billion euros.

Over coffee in London, a hedge-fund manager named Leo Perry shared with McCrum his theory: Wirecard's primary business model was to lie to the public, claiming huge profits, so that investors would push up its share price. However, "faking profits, you end up with a problem of fake cash," Perry said. "At the end of the year, the auditor will expect to see a healthy bank balance—it's the first thing they check. So what you have to do is spend that fake cash on fake assets"—dormant shell companies in Asia, reported as profitable investments.

A week later, McCrum headed to Manama, the capital of Bahrain, where a company called Ashazi Services was supposedly licensing Wirecard's payment-processing software for a fee of four million euros a year. McCrum spent his first day in the country hunting for the Ashazi office. But there was no trace of it at its listed address. The next day, he set out to find Ashazi's corporate lawyer, Kumail al-Alawi, at an office down a trash-strewn alley behind a fried-chicken joint. A man waved him in, and told him that Alawi no longer worked there. But he had Alawi's number, and, after a quick phone call, McCrum was given directions to an empty parking lot. Alawi arrived in a dust-covered car. "They're still working on the building, nobody can ever find it," he said. He and McCrum approached a construction site and walked into what appeared to be the only occupied office—white walls, cheap furniture, and a couple of ferns.

"Ashazi, Ashazi," Alawi muttered, as if he were hearing the name for the first time. He produced a folder, containing a few registration papers, and suggested to McCrum that he call the woman who was listed as Ashazi's founder, a local actress and TV presenter. McCrum reached her by phone, but she had no recollection of the Ashazi contract, and suggested that he ask her business partner in the Philippines. The business partner had heard of Ashazi, but said that he was involved only in marketing—he thought that the actress was running the company.

McCrum concluded that Ashazi's online presence was "stacked with lies," as he later put it. (Alawi claims to have no memory of McCrum.) And, as far as McCrum could discern from the documents, the licensing fee had never been paid to Wirecard. Back in London, he brought his findings to the *F.T.'s* features editor. But that editor "didn't really know what to do with it," Paul Murphy, who had launched Alphaville, a blog at the paper, told me. "The *F.T.* doesn't have an investigative tradition—it's not like the *Guardian* or the New York *Times*." A story in print "has to be understandable to the whole breadth of readers," he went on, whereas "Alphaville had ditched that idea. Alphaville was doing hard-core, hard-core finance."

Murphy brought McCrum onto his team. "I needed someone who had the kind of hard-core technical ability to take balance sheets apart," Murphy told me. Although McCrum didn't yet have enough evidence to use the word "fraud" in print, Murphy, as he recalled, encouraged McCrum, "Just use Alphaville as a platform, to get out your suspicions."

The resulting series, "House of Wirecard," ran in the spring of 2015. But even Alphaville's finance-savvy readership struggled to make sense of the material. "This article could do with a paragraph that states, in plain english, what the author's point is," one reader commented. "There are a lot of facts presented, but their significance is lost on me."

Wirecard's response was less ambivalent. It spent much of the next few years seeking to create the impression that it was the victim of a criminal conspiracy between short sellers—who make money when a stock craters—and journalists, whom they paid off.

In 2016, a pair of short sellers in London released an anonymous, hundred-page inquiry called the Zatarra Report, alleging a litany of criminal activity at Wirecard. The report occasionally veered into conspiracy theories that were unsubstantiated or simply untrue. In the ensuing months, the company spent almost four hundred thousand euros on private investigators, to unmask and humiliate the authors of the report. Before long, their e-mail inboxes were spammed with phishing links and gay porn. Their correspondences were hacked. After McCrum wrote about the Zatarra Report, he was targeted, too, and soon he was driven to the edge of paranoia: he started logging license-plate numbers, checking hedgerows for cameras, and sleeping with a hammer under his bed.

It was not the first time Wirecard had pursued its detractors; in 2008, the company threatened Tobias Bosler, the investor in Munich. He had bet against Wirecard's share price, telling no one about his position, but a Wirecard lawyer managed to track him down anyway. "I got a call from this lawyer, and he said, 'You are short Wirecard,'" Bosler recalled. "He started reading my trades. He said the date, the time stamp, the number of shares—he had all the details of my transactions." A few days later, the lawyer and two Turkish boxers arrived at Bosler's office. The boxers backed him into a corner. One of them punched the wall next to his head; the other threatened his life. Terrified, Bosler closed his short positions. (He provided the German authorities with information about Wirecard's money-laundering activities, but nothing ever came of it.) "No one else looked closely into Wirecard, until Dan McCrum," he said.

"People have this view of finance—that it is, you know, all suited and booted," Murphy told me. But, in his experience, the appearance of respectability usually ends at the façade of the banks. In the United Kingdom, gambling winnings aren't subject to any taxes, so speculators have created a parallel market, to trade on tips and inside information; using a strategy known as "spread betting," they are technically gambling on the directions of stock prices without taking possession of any company shares. They trade on margin, and routinely blow up their accounts. "These guys can be worth twenty million one day and nothing the next," Murphy told me. It is here, among the "bandits," as he affectionately calls them, that he finds many of his best sources. "A lot of them are really kind of rough," he said, over a lunch of champagne and fish sandwiches at the restaurant Sweetings, his favorite haunt. "But they have mathematical brains, you know? They can do numbers, and they can do odds."

Murphy, who is sixty, has been covering the London finance scene for so long that he still answers his phone by announcing his surname, as if on a landline with no caller I.D. In 2016, he got a call from one of his bandits, a businessman, spread-betting speculator, and night-club owner from Essex named Gary Kilbey. "What's this stuff you lot are writing about Wirecard?" Kilbey asked. "Are you sure it's right?"

"Yeah, it's fucking right," Murphy replied.

"I've got a guy who says it's all wrong," Kilbey said. "He doesn't like Dan. He wants to talk to you." That guy was Jan Marsalek; he had got another spread-betting speculator (who had previously pleaded guilty to securities fraud) to employ Kilbey as an intermediate.

"Tell him to fuck off," Murphy said.

Almost two years passed before Marsalek made another overture. Again, the approach was indirect; another of Murphy's sources casually mentioned to him over a lunch of lobster linguini that Marsalek would pay him "good money" to stop publishing reports about Wirecard. "I'm serious," the man said. "I've heard ten million thrown about."

Marsalek wanted to meet Murphy for lunch, and would fly in from Munich for the occasion, with Kilbey and his son, Tom, a former reality-TV star, in attendance. (Marsalek paid the Kilbeys more than a hundred thousand pounds each to broker the meal.) A few weeks later, Murphy walked into a steak house near Hyde Park, wired with a microphone, hoping to catch Marsalek dangling a bribe. He was without backup: three of Murphy's colleagues were supposed to film the interaction with a hidden camera, sewn into a handbag, but Marsalek had changed the venue at the last minute.

Marsalek was at the table, dressed in a blue suit. He greeted Murphy warmly. Wagyu steak, sparkling water, fine wine. Marsalek wanted Murphy to know that, in his experience, journalists could easily be bought. But he spoke carefully; there was no explicit offer. At one point, Marsalek insinuated that Murphy and McCrum were under surveillance, noting that "friends" of his had reported to him that the two men lived "very normal lives." Murphy suspected that another diner—a man, sitting alone—was running countersurveillance. When the bill came, according to Murphy, Marsalek paid with a credit card made of gold.

"He was obviously interesting—he knew people, and he was throwing a lot of money around," Murphy told me. "So I started developing Marsalek as a potential source."

At another lunch, Murphy promised that the *F.T.* wouldn't publish more stories based on Wirecard's past indiscretions, and Marsalek swore to Murphy that there was nothing new to find. They shook hands. After Murphy walked out of the restaurant, Gary Kilbey told Marsalek, "Look, if you are lying, Paul will find out. He will find out, and you'll be buried."

To Murphy, it seemed significant that many of Marsalek's extracurricular activities had some tie to the Russian state. Wirecard had no business presence there, no subsidiaries. But Marsalek travelled to Russia constantly—often on private jets, sometimes landing after midnight and leaving before dawn. According to the investigative outlet Bellingcat, his international travel was closely monitored by the F.S.B., Russia's primary security service. "His immigration dossier numbers 597 pages, much more than any foreigner's file we have come across in over five years of investigations," Bellingcat's lead Russia investigator reported, years later. In Munich, Marsalek decorated his office with a collection of Russian *ushanka* military hats and a set of *matryoshka* dolls depicting the past century of Russian leaders, from a tiny

"Don't pause it—just let me ask you questions for the next twenty minutes."

Lenin to a bloated Putin. He also hosted secret gatherings at a mansion across the street from the Russian consulate in Munich, which he rented for six hundred and eighty thousand euros a year.

In Vienna, Marsalek and Braun mingled with far-right politicians who held openly pro-Russia views. Both men became paying members of an organization called the Austrian-Russian Friendship Society, and set up business deals with its general secretary, Florian Stermann. In late 2015, Stermann asked Wirecard to donate twenty thousand euros to the Society, to help pay for its fifteenth-anniversary gala, titled From Russia with Love, a lavish, all-night affair featuring trapeze artists and a Putin impersonator. Marsalek agreed, but asked that Wirecard's name be omitted from the corporate-sponsorship list.

In 2016, Marsalek helped facilitate a deployment of Russian mercenaries into Libya. An American businessman—who had partnered with Wirecard on an electronic-payments startup—had invested in a cement plant near Benghazi, and he needed the facility cleared of unexploded remnants of war. Marsalek suggested one of his Russian friends, Stanislav Petlinsky, an executive at a security company.

Petlinsky's company—which is known as the R.S.B. Group—cleared the cement plant of more than four hundred explosives. But the arrangement later haunted the American businessman: it is the first known instance, in the chaos following Muammar Qaddafi's death, of an armed Russian deployment on Libyan ground. The R.S.B. mercenaries posed for photographs in front of the cement plant with a banner that read "We are not angels but we are here." According to an essay by Sergey Sukhankin, a senior fellow at the Jamestown Foundation, who has studied Russian mercenary operations, the R.S.B. Group's activities in Libya "should be viewed as a combination of economic interests and, arguably, intelligence gathering/surveillance, which could have been used for preparing the ground for more 'serious' players." In the years that followed, Russia strengthened its relationship with the Libyan commander in the area, and deployed some twelve hundred soldiers from the Wagner Group. They seized oil fields, expanded Russia's security footprint, and influenced economic and political affairs in Africa.

At the time, Russian military and intelligence operations were increasingly active in Europe. There were a number of assassinations and suspicious deaths—state targets who fell from windows or were shot in broad daylight. Then, on March 4, 2018, two Russian military-intelligence officers travelled to the small English city of Salisbury, carrying a vial disguised as perfume. They sprayed its contents on the front-door handle at the home of Sergei Skripal, a former senior Russian intelligence officer who had defected to the U.K.; later that afternoon, Skripal and his daughter, Yulia, were found unconscious on a park bench, seizing uncontrollably and foaming at the mouth.

WALK LEFT
CONTEMPLATE YOUR EXISTENCE RIGHT
PANDOLPH/BALDO

British chemical-weapons analysts determined that the substance was Novichok, a deadly nerve agent devised decades earlier by Soviet military intelligence. In response, the U.K. expelled twenty-three Russian diplomats, who were suspected of being intelligence officers, and launched an inquiry into fourteen other deaths of Russian exiles and businessmen in the U.K.

That fall, Marsalek summoned Murphy to Germany for another lunch, in a private dining room, and handed him a stack of documents. They contained official Russian government talking points, addressed to the U.N.'s chemical-weapons body, casting doubt on the British investigation of the Skripal poisoning. The files—marked classified—also contained the chemical formula for Novichok. "Where did you get these?" Murphy asked. Marsalek smiled and said, "Friends."

In August, 2018, Wirecard had a market capitalization of twenty-eight billion dollars. The company displaced Commerzbank from the DAX 30, Germany's most prestigious stock index.

Markus Braun—who owned eight per cent of the company and was now a billionaire, on paper—had taken out a personal loan of a hundred and fifty million euros from Deutsche Bank, using his Wirecard shares as collateral. Marsalek, for his part, appears to have defrauded the company out of tens of millions of euros, if not hundreds of millions, according to a whistle-blower.

Wirecard reportedly had five thousand employees and was processing payments for a quarter of a million merchants, including major airlines and grocery chains. Braun told investors that he expected sales and profits to double in the next two years. At tech conferences, where he was lauded as a "Steve Jobs of the Alps," as one German journalist later put it, he said that Wirecard's business edge resulted from its proprietary artificial intelligence. "It's not about owning data, but it's about the algorithms that deliver a value out of data," Braun, who had a background in computer science, said. But there was no A.I.; most Wirecard accounts were cobbled together manually, on spreadsheets. As a bank with no branches, Wirecard kept cash in a safe at the office, and sometimes distributed it to business partners, in sums in the hundreds of thousands of euros, by hiding it in grocery bags.

While Murphy puzzled over Marsalek's Russian security connections, McCrum had a new investigative thread to follow. Pav Gill, the head lawyer at Wirecard's Asia division, in Singapore, had quit, taking seventy gigabytes of e-mails with him. As he agonized over what to do with the materials, he learned that his mother had written to McCrum. "Oh, my God, Mum," Gill said, when he found out. "What have you done?"

Soon afterward, McCrum flew to Singapore to collect the data leak. The two men met near a public fountain, to shield against audio-surveillance equipment. McCrum copied the files and returned to London. For the next six weeks, he worked in a windowless room at the *F.T.'s* headquarters, trying to trace individual acts of fraud amid hundreds of thousands of e-mails and calendar appointments. "What drove me on was Jan Marsalek," McCrum later wrote in his book. They had never spoken or met, but McCrum could see in the documents that "he was always at the edges, sometimes dishing out orders but more often his instructions were relayed second-hand, or a mystery would be explained simply by his involvement; that it was one of 'Jan's companies.'" Each evening, his head spinning with new data, names, and organizational charts, McCrum locked his laptop in a safe before leaving the office.

Earlier that year, a woman on Wirecard's Asia finance team had nervously approached Gill, to report that her boss, Edo Kurniawan—who answered to Marsalek—had given a presentation in which he taught his staff how to commit serious financial crimes. (Kurniawan has since been charged with financial crimes in Singapore; he is the subject of an Interpol Red Notice, and his whereabouts are unknown.) Using a whiteboard and a marker, Kurniawan sketched out the practice of "round-tripping," in which an amount of money is moved among several locations, as needed, to fool auditors in different jurisdictions into thinking that each supposedly unrelated account is well funded. (Wirecard's auditor, Ernst & Young, reportedly relied on documents and screenshots of accounts, supplied by the company, without checking with the constituent banks.)

Gill contacted his supervisor in Munich, who told him to commission an internal investigation—which turned up instances of round-tripping, backdated contracts, and other illegal schemes. But when the findings reached Wirecard's board, the concerns were quashed. "I think Jan understands very well what it's about, but they don't shit in each other's bed," Wirecard's deputy general counsel wrote to Gill, on an encrypted communications app. A few months later, Gill was told that if he didn't resign he would be fired.

By the morning of January 30, 2019, the story was complete and ready to run in the *F.T.* McCrum sent off questions to Wirecard, and waited for the company's response.

At lunchtime, Paul Murphy went to Sweetings for a crab sandwich and a glass of white wine. Then Gary Kilbey called. A broker had stopped at Kilbey's office, above his night club, to let him know that a popular spread-betting account was "shorting the absolute bollocks off Wirecard," as he put it. The hot rumor in the London finance scene was that the *F.T.* would publish a hit piece at 1 P.M. "You've got a fucking leak," Kilbey said.

Murphy rushed back to *F.T.* headquarters. "We've got a fucking leak!" he shouted.

How had the story slipped out? McCrum and Murphy had taken unusual precautions—speaking about the story only in person, never on the phone. The story hadn't even been uploaded into the *F.T.'s* internal system. But one of Kilbey's details was off: the *F.T.* planned to publish that afternoon but had never settled on an exact time—1 P.M. was the deadline it had given Wirecard for comment. It seemed impossible that anyone but the company had been the source of the disclosure.

Murphy went over to a Reuters terminal and pulled up the Wirecard stock listing. "We literally sat there watching the share price drop as it approached one o'clock," he told me. "And then there was no story, so people started buying." They waited two more hours for Wirecard to reply. Then, as Murphy put it, "you hit Publish, and then you almost throw up."

The headline said "FORGED CONTRACTS"; the subtitle, "Falsification of Accounts." The article wiped five billion euros from Wirecard's value in a single afternoon. A follow-up piece, published two days later, knocked off three billion more.

The response in Germany was reflexively defensive, as if the *F.T.'s* reporting were an attack on the country itself. "Another fake news article from Dan McCrum," a Commerzbank equities analyst wrote, in a letter to investors. Any dip in share price was "a buying opportunity." "I read in the FT what a naughty boy you are," a member of Deutsche Bank's supervisory board wrote to Markus Braun. He added a winking emoji, and said that he had just bought Wirecard shares. "Do this newspaper in!!"

On February 18, 2019, Germany's financial regulator, known as BaFin, issued a ban on creating new short bets against Wirecard, citing the company's "importance for the economy." "It was at that moment that they sided with criminals," a German parliamentarian later said. The same day, prosecutors in Munich confirmed to a German newspaper that they had opened a criminal investigation. But they weren't going after Wirecard—they were going after the *F.T.*

In a functioning marketplace, the magnitude of short selling tends to correlate with the egregiousness of the financial irregularities in question. "We conduct investigative due diligence over the course of hundreds and even thousands of hours," a young fund manager named Fahmi Quadir wrote to BaFin, in the aftermath of its short-selling prohibition. Such investigations involve visiting offices and monitoring satellite images to see if, for example, activity at a supposed factory in China is actually taking place. "People think that investors spend all their time looking at charts and data. But companies are more than that—the core of a business is human," Quadir has said. "Executives are driven by a certain set of emotional factors, and stressors. You can't pick out these things just from wading through financial statements."

Quadir grew up on Long Island, as the second daughter of Bangladeshi immigrants, and studied biology and mathematics in college before getting a job in finance—an industry that she holds largely in contempt.

Working as a researcher for a hedge fund, Quadir investigated and ultimately contributed to the downfall of a pharmaceutical price-gouging operation, earning her the nickname the Assassin. She places no long bets—only shorts on companies that she believes to be engaged in criminal activity. "At the end of the day, predatory, fraudulent, criminal behavior is bad for business," she has said. She considers her role of exposing fraud, and subsequently profiting from its collapse, "a way to use capitalism and capital markets in a subversive way," something between a "civic duty" and a "revolutionary act."

In January, 2018, Quadir launched her own fund, from a co-working space in Manhattan. She named it Safkhet Capital, for the Egyptian goddess of mathematics, and hired as her only employee Christina Clementi, who had recently taken a course at Yale on the history of fraud, taught by Jim Chanos. By then, Wirecard had acquired Citigroup's North American prepaid-debit-card program. To Quadir, this was a reckless move: if the company was committing crimes, they would now be taking place on American soil.

"In finance, globally, you have a situation where the only effective police are the Americans," Paul Murphy told me. "Our regulators—they're out to lunch. Incompetent, mainly." He added, "What you'll find, say, here in London is that you can be a crook, stealing money from people around the world. As long as you're not stealing from people *in* Britain, you can do anything."

In early 2019, Quadir and Clementi set off in Clementi's 2002 Volkswagen Cabrio for Wirecard's U.S. headquarters, which were registered in an office park in Conshohocken, Pennsylvania, outside Philadelphia. In Suite 5040, they found an office space large enough for perhaps six hundred employees. But only a couple of dozen people were there.

A man who greeted them offered to sell them prepaid cards loaded with up to a hundred and fifty thousand dollars, and added that it would be perfectly acceptable for them to distribute the cards to other people. Quadir and Clementi were stunned. "You can't find prepaid cards loaded with more than ten thousand dollars on the dark Web," Quadir told me.

Quadir and Clementi cultivated confidential sources in the payments industry, and developed a working theory: that the company's primary business purpose was to serve organized criminal networks and Russian oligarchs—to be a "one-stop-shop" for "large-scale money laundering operations that would require scale to support billions in dirty money, annually," they wrote, in a presentation for Safkhet investors. The key was Wirecard's banking license, which enabled it both to accept criminal funds and to obscure their source.

For Wirecard's leadership, Germany's criminal investigation into the *Financial Times* did not come as a surprise—Marsalek had supplied its first witness. For three years, he had maintained a relationship with Gary Kilbey's son, Tom. "It was quite a difficult period," Gary Kilbey told me. "Jan was promising him the world." It paid off: Tom had been at his father's office when the broker walked in and shared the rumor that the *F.T.* was publishing its hit piece at 1 P.M. Now Tom reported it to Marsalek, who wanted affidavits from everyone in the room. "Don't you fucking get me anywhere near it," Gary Kilbey replied. But Gary's daughter's boyfriend—fresh out of prison for laundering money for a drug-dealing gang—had witnessed the scene with the broker, and he offered to make a statement.

In February, 2019, Marsalek met with Munich's top public prosecutor, Hilde Bäumler-Hösl. He told her that he had spent years infiltrating the London spread-betting scene, as a matter of "enemy reconnaissance," and that the *F.T.* was colluding with short sellers. Three days later, Bäumler-Hösl issued a statement to the German press: "We received serious information from Wirecard that a new short attack is planned, and that a lot of money is being used to influence media reporting."

This was not the only defensive action that Marsalek took. Wirecard signed an agreement with Arcanum Global Intelligence, a strategic-intelligence firm whose leadership is made up of former senior British, American, French, and Israeli intelligence and military leaders. Representatives for Arcanum insist that the firm's work for Wirecard consisted only of an internal investigation into Pav Gill's leak of confidential information from the Singapore branch. But on February 5th, days after McCrum's first article about the Asia division, Arcanum's founder, Ron Wahid, sent Marsalek a proposal, titled Project Helios, to "investigate and identify short sellers" and to carry out a multi-stage "plan of attack." Although Arcanum's leadership claims that the proposal was never executed, a letter written by the firm, addressed to the U.K.'s Financial Conduct Authority, says that Arcanum was "retained by Wirecard to investigate a series of short selling attacks."

"Phase I will be a 'scoping and disclosure phase' where all existing information and initial intelligence findings are reviewed," the proposal read. The next phase would include "more targeted and in-depth intelligence collection and analysis." Targets' "wrongdoings and vulnerabilities" would be "judiciously pursued." For a fee of two hundred thousand euros a month, former "senior leaders from the world's most powerful intelligence and law enforcement agencies," as Arcanum put it, would deploy their combined networks and expertise in the service of Wirecard.

McCrum had continued to investigate Wirecard's activities in Asia. Half of its global sales appeared to come through three clients: one in Dubai, one in Singapore, and the third, called PayEasy, in the Philippines. McCrum's colleague Stefania Palma set off for Manila, to check out PayEasy. Its supposed headquarters turned out to be shared with a bus company. Another Wirecard partner, ConePay, was a private home in a remote village surrounded by rice paddies. Palma was greeted by two Filipino men, who were grooming a small white poodle and a Pomeranian. Neither of them had heard of ConePay. Then a family member produced a few scraps of mail. One was a document from Wirecard Bank, addressed to ConePay International, showing a balance of thirty euros.

By now, Marsalek had fully entrenched himself in the affairs of his Russian mercenary friend, Stanislav Petlinsky. Wirecard arranged a deal with the R.S.B. Group's holding company in Dubai, to sell the mercenaries its prepaid-debit-card software. In an encrypted chat with Dagmar Schneider, a senior member of Wirecard's finance team, Marsalek wrote that if auditors had questions about R.S.B. they should call Vladimir Putin. As McCrum and Palma closed in on the fraud in the Philippines, Marsalek joked with Schneider about having people "shot by MY Russians at RSB." The following week, he wrote to her that he had "been struggling with the FT since 5 in the morning."

"Send YOUR Russians to London," Schneider replied. "They should give us some peace."

McCrum and Palma published their investigation into Wirecard's partners on March 28th; two weeks later, BaFin filed a criminal complaint against them for "suspicion of market manipulation of Wirecard shares." Outside investors took the German government's actions as a powerful signal. In late April, the Japanese company SoftBank, which runs the world's largest tech-focussed venture-capital fund, invested a billion dollars in Wirecard, in exchange for bonds that could be converted into a 5.6-per-cent stake. But the *F.T.* stories still rattled the SoftBank team enough to ask to see lists of Wirecard's biggest clients in Asia—which Marsalek faked.

"He has this crazy conspiracy theory about object permanence."

Wirecard treated every short seller as an existential threat. In 2016, Marsalek had approached Nick Gold, another of Gary Kilbey's contacts in the London spread-betting scene, and offered him three million pounds to persuade a rich friend to stop shorting Wirecard. Gold declined; he found Marsalek boring, he said, and thought that the way he held his cup of coffee suggested that he was "a loser." Only a crooked company, Gold said, would send a senior executive to hunt down its critics.

Three years later, a British former undercover cop, who now works as a private investigator and goes by Jon, was hired to work for a client who had set up temporary residency at the Dorchester hotel, in London. The client was well built, with close-cropped hair and an even stubble. He was of Libyan background, but had grown up in France, spoke flawless English, and tipped the hotel staff with high-denomination notes. "He wanted countersurveillance on himself when he was in the U.K., to make sure that no one was following him," Jon told me.

Jon doesn't like the term "private investigator," because he thinks it diminishes the scope of what he does. On an average day, he collects the travel histories and police files of five to ten targets, through contacts in the public sector. They don't know his full name—they just know not to ask questions, and that they will be paid in cash. His clients include businesses, government agencies, and billionaires, and his duties range from spying on philandering spouses to helping international criminal gangs insure that a stolen passport can be used to get a murderer across a border. "There's a lot that is very questionable that I can do, that I have done," he said. "In the police, you have to have morals—or you're meant to. That's the whole point of being a police officer. And then you come out into the private sector and—let's be honest—it *really* doesn't matter." For almost four hours, he spoke candidly, on the condition that I neither publish his full name nor describe him physically.

The client at the Dorchester introduced himself as Rami, but Jon didn't know his business. After a couple of months, Jon found the man's full name, Rami El Obeidi, and learned that he had briefly served as the head of foreign intelligence for Libya's transitional government, during the revolution.

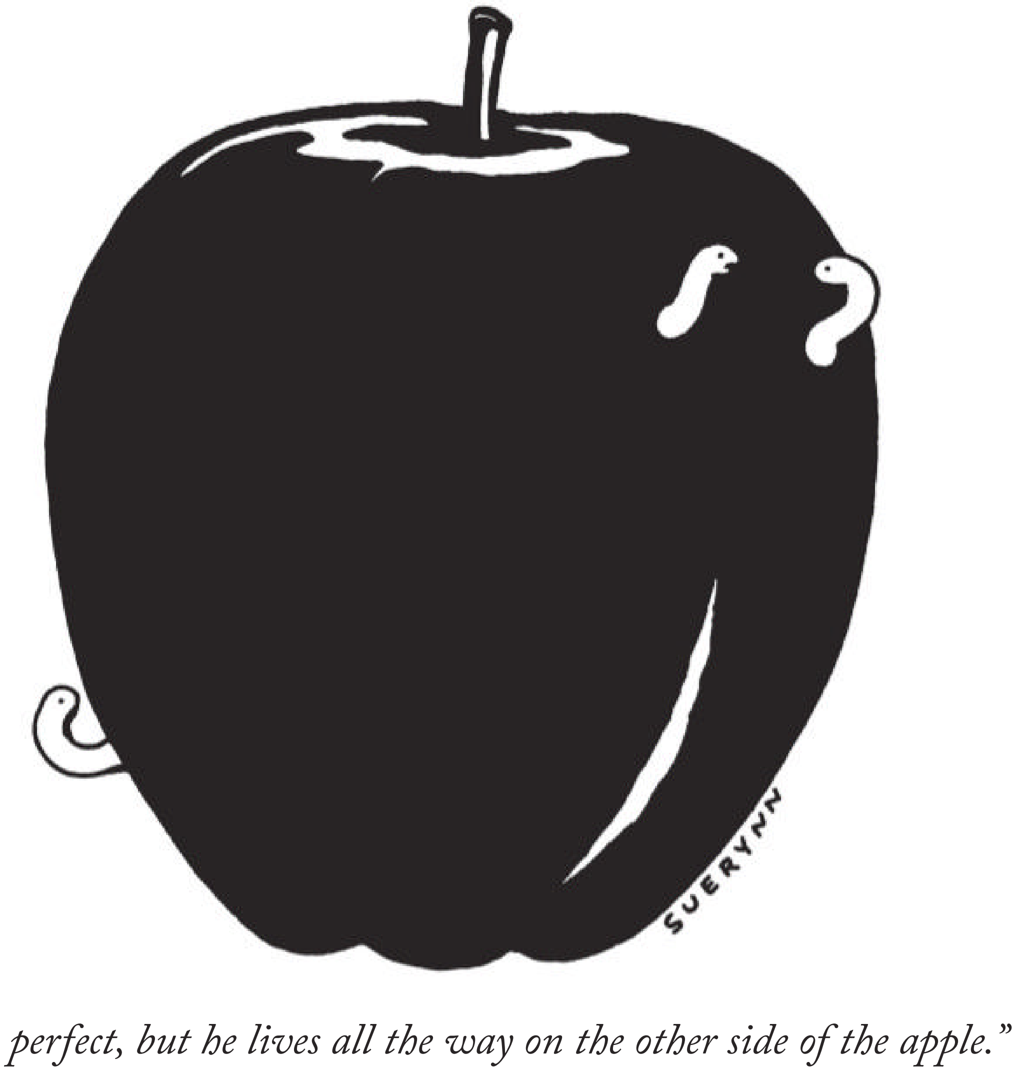
Like Marsalek, El Obeidi wore high-end Italian clothing brands, and he moved with ease through the strange world of former military and intelligence officers. He was apparently a major Wirecard investor, and a regular visitor to Marsalek's secret mansion near the Russian consulate in Munich. To protect his financial interests, El Obeidi had come to London to run an intelligence operation of his own. The main target was Nick Gold, who had somehow been named as a suspect in BaFin's complaint, alongside Dan McCrum.

Gold had made a fortune selling industrial supplies, and gambled it wherever he thought he had an edge. He was handsome and athletic, with dark, flowing hair—a generous, charismatic party host in his forties who did lots of cocaine and dazzled guests with card tricks at his mansions in London, Miami, and Cannes. "I used to go up to Oxford Street when I was seventeen and I would hustle people," he told me. "Some sucker would come, like you, and you'd lose." In the decades since, he has been banned from casinos for counting cards, and from betting on horse racing for coördinating with jockeys to throw races. Once, before betting on how long it would take for a soccer match to reach its first throw-in, he paid off a player to kick the ball out of bounds in the opening seconds of the game. "It's not gambling if I know the outcome," he insisted. "I've never gambled. I've never played a game I thought I could lose."

Paul Murphy met Gold at Gary Kilbey's sixtieth-birthday party, a raucous gathering at which Kilbey urged his guests to "drink as much as you can take." Murphy had heard that Gold was a partial owner of the Box, a high-end cabaret club in Soho, where the hostess reportedly welcomed guests to the 1 A.M. burlesque show with instructions to "answer every fetish" and "do all the cocaine you can." As Gold remembers the encounter, Murphy gave him his number and invited him to call if he ever had a newsworthy tip. Murphy's recollection was of something more instrumental: "I wanted to send in a young, blond, female reporter to harvest crap from him."

One day, Gold called Murphy, to pitch a story about a sports-betting company. But Murphy told him that he had no time to talk—he was tied up with Wirecard matters. "The minute he said, 'I'm stuck on Wirecard,' I knew this was a no-brainer scenario," Gold recalled. "I have to short sell this company within an inch of my life. Which I did."

That summer, a mutual acquaintance of El Obeidi and Gold's, a soccer agent named Saif Rubie, casually bumped into Gold at a party in Cannes. Gold, as he recalls, was "dancing on tables and being a lunatic, as I am—having a great time" when Rubie approached him and said that he was working for a group of foreign investors who were looking to invest billions. Gold invited Rubie to bring the investors to his office in London the following week.



"He's perfect, but he lives all the way on the other side of the apple."

On the morning of July 17, 2019, Rubie walked into Gold's office, accompanied by a man from Lancashire who claimed to represent the foreign investors. In fact, he was a private-intelligence operative working for El Obeidi, carrying a hidden recording device. Gold suggested a bet against Wirecard, claiming that the *F.T.* was about to publish a story that would send the share price to zero. "It could be tomorrow, could be—you never know," Gold said. The tip was solid, he assured them: his source was the investigations editor, Paul Murphy.

By coincidence, Gold's timing was right. A few hours after that meeting, Dan McCrum sent Wirecard a series of questions, revealing he knew that most of the company's operations in Dubai were centered on fake customers. Marsalek, who had already received a copy of the Nick Gold recording from El Obeidi, summoned a public-relations expert, who suggested that they share the recording and McCrum's suspiciously timed questions with Sönke Iwersen, the head of investigations at *Handelsblatt*, the German newspaper. The private investigator from Lancashire spoke to Iwersen on "deep background," to supply details without being named. He mentioned that he had been working for a Wirecard investor but omitted that the investor was a former Libyan spy.

Wirecard's lawyers wrote to the *F.T.*, saying that Wirecard had passed evidence of insider trading between Nick Gold and Paul Murphy to the British and German authorities. The letter demanded that the paper not publish any Wirecard stories until investigations were complete.

Murphy immediately texted Gold and told him that he had been recorded. "Paul, you're a brilliant reporter, but you've just done something really dumb," Lionel Barber, the editor of the *F.T.*, told Murphy. Murphy offered Barber a full audit of his finances. But it wasn't enough; the reputation of the paper was on the line. For four years, "I had told the compliance people, the lawyers, 'Get lost, we're doing this story,'" Barber told me. "But when this came up I had to do something." He hired outside counsel to investigate Murphy and McCrum. "You're going to have to spend some time in the sin bin," he told Murphy.

Wirecard, now emboldened, delegated legal authority to the Arcanum officers to act on its behalf "in any such way that they consider necessary and lawful." Arcanum's vice-chairman at the time, Keith Bristow—who had served as the first director-general of the U.K.'s National Crime Agency—met with the Financial Conduct Authority, as part of Wirecard's effort to get the agency to investigate the *F.T.* (The F.C.A. declined to comment on its relationship with Arcanum.) Arcanum's leadership includes a former director of national intelligence in the U.S. and a former head of the British Army. The group capitalized on its connections even when it had no clarity on the origins of the information it shared. Although the Arcanum team had apparently never heard of El Obeidi, it drafted a letter to the British authorities in which it claimed to have "considerable knowledge" of the "events and subjects of interest" leading up to El Obeidi's sting operation on Gold.

That fall, El Obeidi hired twenty-eight operatives to set out on the streets of London, on a mission called Palladium. The ground team was led by Hayley Elvins, a former MI5 officer, and the operatives communicated with one another through a private walkie-talkie channel. There were a number of targets—all short sellers in London. Jon was now assigned to follow Gold.

From time to time, Jon learns too much about an operation, and begins to question his role in it. "If there was just six of us watching him, I would have just gone along with it," he told me. "And, looking back, in some ways I wish I had." The team was instructed to use only legal practices, so that any intelligence collected would stand up in court. But Palladium felt disproportionate. It had a running cost of eighteen thousand pounds per day, and employed some of the most comprehensive, hostile surveillance methods Jon had seen. "I felt terribly sorry for him," he said of Gold. "You know, I still have a conscience."

One day, Jon called Gold's housekeeper from a burner phone. He said that he was a police officer, and needed Gold to call him about an ongoing investigation. Gold called him back almost immediately. "They're doing a huge surveillance operation on you," Jon told him. "I think you're going to get fucked over here, royally."

Gold summoned Jon to his office. "I've been, you know, in the business long enough to know when someone's high on coke," Jon said. "He was high. And he goes, 'Right! One of my contacts at the *Financial Times* is Paul Murphy. You've got to tell him about the surveillance operation!'" They went to Claridge's, an upscale London hotel, to meet Murphy. Jon supplied him with Palladium documents and told him what he knew of the operational structure.

Murphy asked Jon to prove his access and credentials. At that point, Jon remembered that, for a previous job, he had spied on another *F.T.* reporter, a man on Murphy's team named Kadhim Shubber. Moments later, as Murphy recalled, "he sends me a fucking picture of Kadhim's mum's passport!"

"It made me chuckle," Jon told me. He also had a copy of Shubber's bank card. "But I wasn't trying to show off. I was just, like, Oh, what a small bloody world this is!" he said. "Like, how fun is this? I'm talking to Paul Murphy, who sat across from Kadhim, who I've gone and looked at—like, what are the chances? I found it quite ironic, really."

Now Murphy reached out to Elvins, the former MI5 officer who was running El Obeidi's operation on the ground. "I tried to flip her," he told me. "Unfortunately, I did it at about eleven o'clock at night, and I'd had a couple of drinks." He texted Elvins that he could "obv see the damage to your firm we are about to do," and added, "Work with me and I promise we won't fuck you over." Her reply came in the form of a complaint from her lawyers. Barber summoned Murphy to his office, and Murphy offered to resign. When Barber refused his offer, Murphy grew defiant. "You know, these stories—they don't just float in through the fucking window!" he shouted.

"Paul, I want the fucking fraud nailed," Barber replied. "I want the story. And the story is not that you're texting some ex-MI5 agent at eleven o'clock at night!"

After two months, the external law firm cleared Murphy and McCrum. All summer, they had been quietly preparing the paper's final blow—a straightforward piece that presented tangible proof of fraud and included all the underlying Wirecard spreadsheets and e-mails. The instructions from Lionel Barber were to "draw blood."

The piece was published on October 15, 2019. "And we just thought, We killed it—that's it," Murphy recalled. The story was so damning that investors called for a forensic audit, and Wirecard acquiesced. But the investigation would take six months, and Braun, Wirecard's C.E.O., assured stock analysts that it would put to rest any concerns. At that point, "the fucking share price goes up," Murphy said. "Everybody in Germany was saying, 'Oh, yeah, the *F.T.* are full of shit.' And also, at this time, people like Nick Gold actually were going mad. They were having psychotic episodes. He was found near death, slumped over his steering wheel." (As Gold tells it, he had mixed alcohol and Xanax and pulled over for a nap on the side of the road.) "Nobody knew who to trust," Murphy continued. "In this entire broad community that believed Wirecard was a fraud—and by this time it was kind of a wide community—everybody was fucking paranoid about everybody else."

In the following months, the attacks on short sellers grew increasingly personal, and even violent. Fahmi Quadir was punched in the head by a masked man with brass knuckles while walking her poodle on the Upper West Side; she was knocked unconscious,

LAWRENCE LINDELL

"Oh, God, outside is calling."

and the assailant, who stole nothing, was never found.

It also appeared as if operatives were collecting detailed information on Nick Gold's trades; in the next few months, all his leveraged bets were liquidated, with losses into the tens of millions of pounds. "My name was tarnished. Banks were now shutting me off, overnight," Gold recalled. "My wife left me."

One night, at the Box, "I'm doing coke, I'm off my mind, I'm going drinking like a lunatic, and I walk out with the hottest girl you've ever seen," he told me. "Fifteen out of ten." But it was a trap; a blackmail recording of the liaison arrived by e-mail. "The worst part was that I had my socks all the way up," Gold, who is now sober, said. "You don't want to be seen fucking with white socks up at my age."

In the year leading up to Wirecard's collapse, in June, 2020, the leadership plotted a takeover of Deutsche Bank—an acquisition so huge that Wirecard's balance-sheet fraud might be buried in the deal. "It was essentially Braun's last roll of the dice," Murphy said. Wirecard's desperation continued. The auditors focussed on two bank accounts in the Philippines, which purportedly held the missing two billion euros. COVID restrictions complicated the auditors' ability to visit the banks in person, so Wirecard reportedly hired Filipino actors, posing in fake bank cubicles, to attest to the funds on a video call. But the auditors persisted, and asked Wirecard to prove that it controlled the funds by transferring four hundred million euros to one of its accounts in Germany. When Wirecard failed to perform the transfer, the auditors contacted the Philippine banks directly—both of which replied that Wirecard's accounts did not exist. Days later, Braun was required to announce the auditors' findings. Wirecard's share price plummeted eighty per cent, and the company was soon forced into bankruptcy.

Fahmi Quadir's short bet cleared tens of millions of dollars. A couple of larger funds made hundreds of millions. Other short sellers made no money, because they were too early. "We consistently underestimated people's ability to look the other way," Leo Perry, the fund manager in London, told McCrum.

In Germany, there was a raft of resignations and firings: Felix Hufeld, the head of BaFin; the head of Germany's audit regulator; several leading Wirecard analysts at other European banks. A German parliamentary inquiry held a hundred witness hearings and reviewed nearly four hundred thousand pages of documents, concluding that the behavior of Wirecard and its enablers was "the largest financial scandal in the history of the Federal Republic of Germany." The report blamed "collective supervisory failure," "the longing for a digital national champion," and "the German mentality toward non-Germans"—specifically, Quadir and McCrum. "German supervisory authorities are not fit for the 'Internet Age,'" the report concluded. Olaf Scholz, Angela Merkel's finance minister, who oversaw BaFin, told the parliamentary inquiry that he bore no direct responsibility for what had taken place under his watch. Later that year, he became the Chancellor of Germany.

Markus Braun was arrested in Munich, and charged with fraud. He maintains that he is an unwitting victim of a scheme orchestrated by Marsalek and others. The trial is ongoing. Oliver Bellenhaus, who ran Wirecard's fake partner in Dubai, recently testified that the company's partnerships in Asia were "a sham right from the beginning."

"You cannot understand Wirecard if you understand Wirecard only as fraud," Felix Holtermann, a financial reporter at *Handelsblatt*, told me. "It's not a Potemkin village, it's not a Bernie Madoff case." According to Holtermann, who has also written a book about the company, Marsalek routinely "used his power to override Wirecard's very, very small compliance department" to issue bank accounts, credit cards, and debit cards to Russian oligarchs who were on European financial blacklists. "Germany was, and still is, the money-laundering saloon of Europe," he said. "Only the biggest washing machine broke."

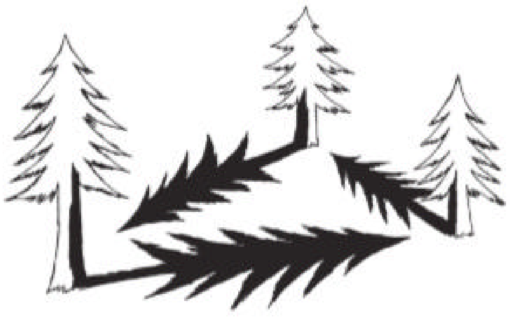
In the past two years, investigations by journalists, prosecutors, police, and intelligence agencies have turned up an array of astonishing facts about Marsalek's activities outside Wirecard. At his secret mansion near the Russian consulate, he regularly hosted gatherings with government officials and spies. They came from Russia, Austria, and Israel—but never, it seems, in any official capacity.

Marsalek was also dabbling in political affairs. A major issue in the lead-up to Austria's 2017 elections was migration from sub-Saharan Africa and the Middle East. Marsalek—who was connected to members of Austria's far right—started developing plans to assemble a fifteen-thousand-man militia in southern Libya, to prevent migrants from reaching Mediterranean shores. Organizational meetings were held at the mansion in Munich, and included current and former senior members of Austria's defense and interior departments. The project's security adviser was Andrey Chuprygin, a former Russian lieutenant colonel and a professor of political economy who is widely suspected, in Western intelligence circles, of maintaining a close relationship with Russia's military intelligence agency, the G.R.U. (Chuprygin, who denies links to Russian intelligence, told the *F.T.* that he advised Marsalek only on "shifting politics and tribal dynamics.")

At some point, Marsalek asked an Austrian intelligence officer named Egisto Ott to design a surveillance-proof room in the mansion. "It was a complete botch," an independent security professional later testified. "The execution was extremely poor." But Ott was useful in other ways. Under the direction of his former boss Martin Weiss—the onetime head of operations at Austria's intelligence agency, the B.V.T.—he carried out regular background checks on Marsalek's behalf, according to thousands of pages of leaked Austrian investigative files. Marsalek allegedly paid for searches on at least twenty-five people whom he suspected of having ties to intelligence agencies. Neither man still had access to the B.V.T.'s systems—Weiss had resigned his post, and Ott, who was suspected of selling state secrets to Russia, had been reassigned to work at Austria's police academy. But they managed to run the searches regardless. (Weiss could not be reached for comment. Ott denied conducting background checks.)

It is unclear what Marsalek was up to. He seemed to take every opportunity to play a part in political matters, no matter how strange or futile. At one point, he involved himself in an effort to relocate Austria's Israeli Embassy to Jerusalem, to align with the policy of President Donald Trump. Marsalek's name was found on a list of possible seed investors in a company that would buy the remains of Cambridge Analytica, the data-collection firm that was mired in scandal for its role in influencing elections. When it came to Libyan matters, Marsalek seemed to get a thrill out of telling people that he had body-cam videos of horrific battlefield violence, saying that they showed "the boys" killing prisoners. He boasted that Petlinsky had taken him to Syria to embed with Russian soldiers, on a joyride to the ancient city of Palmyra. According to Weiss, Marsalek "wanted to be a secret agent." But there's no concrete evidence that he was.

Nevertheless, Marsalek's position at Wirecard gave him access to materials that might be of interest to a foreign intelligence service. In 2013, the company began issuing credit cards with false names to the German Federal Criminal Police Office, for use during undercover investigations—meaning that Marsalek might have had insights into the agency's operational spending. It later emerged that the B.N.D., Germany's foreign-intelligence service, used Wirecard credit cards, too. After Marsalek's escape, the B.N.D. claimed that it was unaware of his connections to Russian intelligence.



In 2014, Marsalek led an effort at Wirecard—in partnership with private Swiss and Lebanese banks—to issue anonymous debit cards that could be preloaded with up to two million euros per year. In his pitch, he told Mastercard that such cards would spare ultra-high-net-worth individuals the annoyance of being asked for stock tips, for example, when a waiter took a credit card and learned the client's name. But it is difficult to conceive of a more useful setup for covert operational expenses—an anonymous asset, accepted by everyone, perfect for bribing politicians, paying assassins, or moving large sums of cash across borders.

Jan Marsalek's getaway jet landed in Minsk. From there, he continued to Moscow, on a fake passport, likely with the assistance of Petlinsky, according to the Dossier Center, an investigative outfit. Both men have changed their names; Petlinsky's whereabouts are unknown. The next month, Germany sent an extradition request for Marsalek to Russian law-enforcement agencies. They replied that they had no address for Marsalek, and no record of his having entered the country. His last known phone activity was last year.

"He's quite clearly hiding in one place, just because of the logistics of how all sorts of systems work when you travel," Jon, the private investigator, told me. "Every time a passport is visually scanned into another country, we can get those records here." He speculated that Marsalek will soon be "drained of all his money," and recalled clients "who have done disappearing acts," made it to Russia, and come back a few years later, completely broke. "Out there, you pay for your safekeeping," Jon said. "As soon as you don't have money, then you're disposable."

Last summer, a grainy photo appeared to show Marsalek in an upscale Moscow neighborhood, wearing a red Prada jacket and climbing into an S.U.V. "It actually does look like him," Rami El Obeidi, the former Libyan spy chief, mused on Twitter. "Except, knowing him, he never wore Prada (unless Russia got the better side of him). He preferred Brioni, like I do." ♦

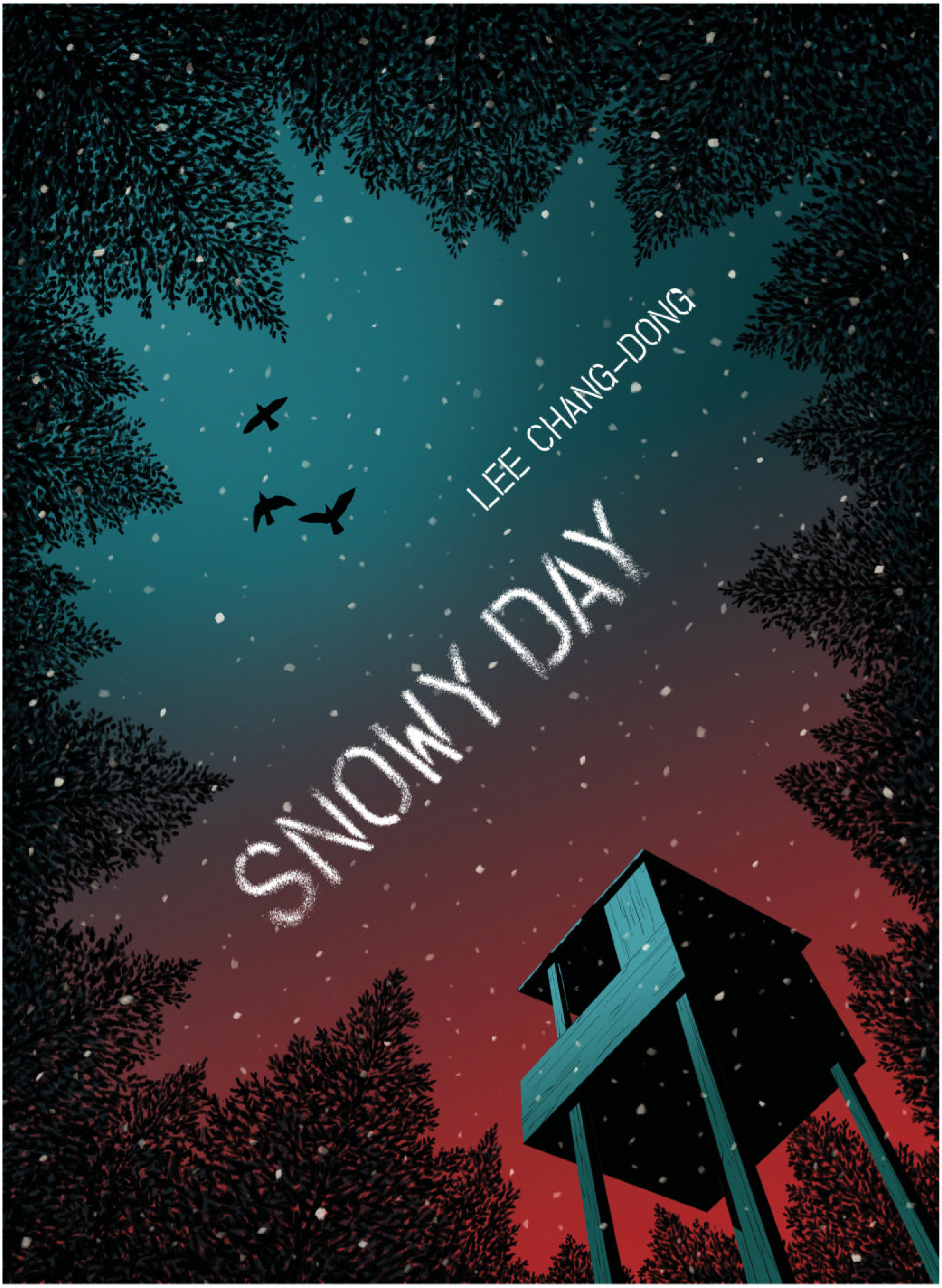

LEE CHANG-DONG
SNOWY DAY

ILLUSTRATION BY ANUJ SHRESTHA

The guard on duty blocked the woman with his M16. She was slender, one shoulder slanted down as if the suitcase she carried in her hand were too heavy for her. As she spoke to him, the steam of her breath rose up in the cold air.

The window of the guard post, which stood like a little tower at the entrance to the base, snapped open. "Hey, what's she saying?" a staff sergeant called out. "Send her in."

The staff sergeant wore his winter cap mashed flat on his head. "What brings you here?" he asked when the woman came closer.

"I came to visit Private Kim. Kim Young-min."

"What unit is he with?"

"I'm not sure," she said. "I wouldn't know that sort of thing. I just know he's here." The woman's face was red from walking so far in the cold. She automatically covered her mouth with her white-gloved hand when she spoke.

"Miss, we can't find him with just that. You've got to know exactly what unit he's in." Another man, whose head had been hidden in the opening of the rusty stove he was lighting, stood up, stretching his back. He was a sergeant, but with his long, soot-stained nose he looked so comical the woman had to suppress a laugh.

"Can't you figure it out?" she said. "You're in the same company. He's tall. He's got a slim face, and his eyelids have a double fold."

The sergeant and the staff sergeant looked at each other as if they were holding back their own laughter. "And what's his relationship to you?" the sergeant asked with an amused smile.

The woman didn't answer. Her hand still covering her mouth, she suddenly turned away, her smile gone cold. The parade ground behind the guard post was pure white, blanketed in snow. The whole way up there, she'd worried that she would miss the snow. Sunbeams shone like spikes of ice above the parade ground, and the barracks beyond were buried in the deep shadow of the mountains—the division between light and dark seemed especially sharp. The tops of pine trees pierced the dark silhouette of the mountains in the low sunlight, glinting like bayonets affixed on rifle barrels.

"Well, since you came all this way looking for him I'll make a special effort," the sergeant said.

The woman said thank you so softly that he could barely hear her.

The sergeant lifted the handset of the field telephone, and while he cranked out a signal the staff sergeant flung open the visitor log.

"What's your name, Miss?"

"Lee Young-sook."

"And your address?"

"Seoul."

"Your home is all of Seoul?" the sergeant holding the handset said sarcastically.

"It's Guro-dong, Guro-gu."

"Wow, you're from a nice neighborhood," the sergeant said.

"House number?"

"Twenty-sixth tong, fourth ban, number 169."

"Your occupation?"

The woman's white-gloved hand went back up to her mouth.

She hesitated with the answer, her lips purple from the cold. The staff sergeant tapped on the window ledge with a ballpoint pen.

"You don't have a job?"

"I'm a factory worker."

"Excuse me?"

"Factory worker. I work in a factory."

The two soldiers exchanged looks again and laughed quietly.

"What's with 'factory worker'? How about the more elegant 'office worker'?" It was the sergeant again. The signal must have gone through just then, because he began yelling into the handset, but the reception was bad and he'd purse his lips, whistle a couple of times, and start yelling again.

"I said *Kim. Young. Min! Private!* What?" His expression suddenly hardened. "You're sure the guy's name is Kim Young-min? *Goddammit!*"

The sergeant covered the handset with his palm and glanced toward the staff sergeant. The two huddled in a corner and whispered to each other. Now the staff sergeant took the handset, his expression noticeably tense. The woman watched them nervously, and when her eyes met those of the sergeant, who was staring straight at her, she looked away.

The long military road that had brought her there stretched out between the snow-covered fields, its tail hidden behind the saddle of the mountain. She realized that she hadn't once given a thought to how she would travel back on that road. For now, it seemed too distant to be real.

Beside the guardhouse, with its label designating the post number, stood large signs with slogans like "Crush Them from the Start!" and "Exterminate Communism!" She noticed long rolls of barbed wire strung along the perimeter of the base, the distant barracks, the vast, snow-covered parade ground pierced by cold sunbeams. Everything seemed wrapped in a blanket of stillness. But for some reason she felt in danger, as if she were standing on ice that was about to crack, and her entire body shook with this unknowable fear.

Suddenly, he's awake. And once he's awake—though it's obvious—he realizes that he is a soldier, a private in the Army, and that right now he is on night guard duty.

He must have nodded off, standing, with his M16 slung crookedly over his shoulder. He is shivering. His knees and teeth, especially—which have been chattering since the start of his shift—are shaking non-stop.

He opens his eyes wide. Except for the occasional sound of wind, it is dead quiet in all directions. Darkness lies before him, and a few steps into that darkness there is barbed wire, and beyond the barbed wire an even thicker darkness. Though the landscape is never-changing, he senses that there has been a change. Only after something cold and wet hits the tip of his nose does he realize what it is. Snow. Snow is falling, and gradually lighting the darkness.

He looks back at the guard post quite a distance away. His co-worker is in that guardhouse, but there's no indication of whether or not he knows it's snowing. He may have fallen asleep with his butt seated on his steel helmet.

"Hey! Stay alert. If you see the patrol, challenge him. Loudly!" That's what his colleague had said at the start of their shift, before crawling into the guardhouse. When a superior says something like that, it usually means that he intends to relax, get some shut-eye. He himself is a private, and his superior is a corporal. Suddenly he wants to get the corporal and shout out to him that it's snowing.

But, immediately, the private regrets it. Because he knows there's no way the corporal will enjoy the snow as much as he does. And now the corporal is coming out of the guardhouse, flustered, as if he'd been asleep on his helmet, just as the private thought.

"What? What's the matter?"

"It's snowing," the private says.

"*What*?"

"Snow. It's the first snow of the season."

"Fucking *idiot!* You scared me! This the first time you seen snow, dumbass?"

It's been six months since the private started his military service, but there's a lot he still cannot understand. For instance, until then he would never, ever have imagined that he'd be treated like an idiot because he was happy to see snow falling.

"How long's it been?" the corporal asks. "The time, I mean."

The private digs out his wristwatch from inside his thick, Arctic uniform sleeve and holds it right up to his eyes.

"Thirty . . . No, forty minutes."

"*Shee-it*. Every minute feels like a fucking year."

The corporal spits through his teeth. It's rare that every other word out of his mouth isn't an obscenity. But through his unique use of tone and inflection he has a way of making it sound like he isn't swearing at all. There's a tradition of cursing in the military, and the corporal has a mastery of military conventions beyond his years. The private knows that the corporal is actually four years younger than he is—the corporal started his military service early because of a government registration error. His eyes are prematurely old, but apart from that the corporal still has the face of a kid.

Compared with the corporal, the private is utterly inept at picking up military traditions. For a while, after he was called up and his head was buzzed, he couldn't even state his name and rank properly. Whenever the drill instructor jabbed him in the belly at roll call and said, "*You!*," he knew he was supposed to yell at the top of his lungs: "*Yes, sir! Trainee! Kim! Yo-ung! Mee-in!*" But he couldn't. It all felt like a ridiculous play to him and, like a self-conscious actor with no talent, he just could not perform his role convincingly. He had even tried to duck his military service. But no one gave a damn about something as trivial as his self-consciousness. He was punished—his toes braced on his bed and his melon head pushed against the cement floor of the barracks—until he could properly state his name and rank.

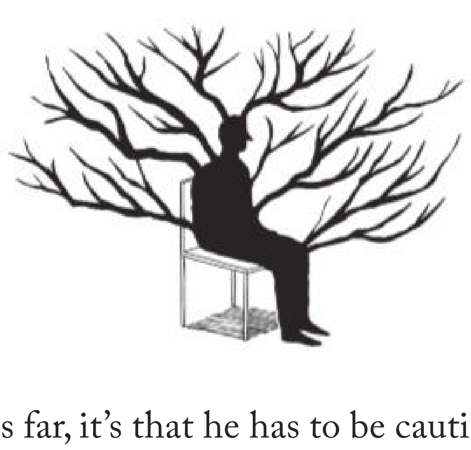
"*Motherf—!*" the corporal says, his head thrown back so that he can watch the thickening snowflakes. "Looks like we gonna be stuck on snow removal all morning tomorrow."

Tomorrow is Sunday. How sad, the private thinks, to be concerned only about tomorrow, having to be on snow detail, when he could be appreciating the snow falling right now. But the private envies the corporal, who knows how to think and feel like a soldier, and sometimes he feels inferior.

"Corporal Choi . . ." he says. Better to talk than to just let his jaw tremble in the cold. "What did you do back home? If I may inquire."

"If you *may inquire*? You sure like using those pretty words. You think I don't know you went to college?" The corporal shoves his face close and, in a soft and intimate voice, he says, "I guess the Army *does* have its perks, huh? I mean, out in the world how could you be acting like this in front of someone like me?"

The corporal is smiling, his teeth bared, but the private doesn't dare smile along. If there's one thing he's learned thus far, it's that he has to be cautious when a superior behaves erratically like this.



"The Army is truly fair, if you think about it," the corporal says. "See, in the Army, how many mess-hall trays you rack up tells you everything you need to know. What could be fairer, see? I just can't understand assholes who say Army life is hard. When I was a civilian I never got more than four hours of sleep a night. But here—not even counting when I'm on duty—I get at least six. And, even if the sky were to split in two, have you ever not had three squares a day?" He pauses for a moment, and when he continues it sounds like he's spitting. "You *really* want to know? I worked in a *bathhouse*."

"A *bathhouse*? What kind of work do you do in a bathhouse?"

"Fucking moron, you think you wear a necktie and do office work in a bathhouse?"

The corporal is silent after that, and for a short while all that can be heard is the sound of their footsteps in the snow. He must be angry, the private thinks. Maybe he regrets flapping his jaw a bit too much in front of a newbie.

"Hey, how long's it been?" the corporal asks after a while, his voice hoarse.

The private looks at his watch. Everything seems noticeably brighter now because of the snow.

"It's been thirty minutes."

"Fucking *son*ofabitch!"

It takes the private a moment to realize what's wrong.

"Didn't you say *forty* minutes before?"

"I'm sorry. It's just so dark. . . ."

"Get over here, you little shit."

He steps forward, approaching the corporal, whose eyes are shining in the dark like those of some animal.

"Are you making fun of a superior, punk? If forty minutes went by just a little while ago, and now it's only thirty, how many minutes did I just lose because of you?"

"I'm not . . . I just . . . read the watch wrong because it's dark."

"No excuses! In the Army, ten minutes is enough to have a quick fuck and still have time left over to eat a bowl of ramen. You understand?"

The corporal looks barely old enough to have finished high school, so it's doubtful that he's ever even had "a quick fuck." But he continues, in a commanding tone: "You will now commence taking responsibility for the ten minutes that Army Corporal Choi has unjustly lost. Is that clear?"

When the private is silent, the corporal's voice grows louder.

"Why aren't you answering? Did you just laugh at me?"

"How am I supposed to take responsibility?"

"Tell me a good story. So good we

"I'm trying to decide if I need coffee or a new job."

don't even notice the time going by."

"But . . . I don't know how to tell stories."

"What are you talking about, punk? You had a taste of college, so you must know lots of stuff. Talk about your love life out in the world."

"I never dated."

"Would you look at this punk. No fighting spirit. Assume the position, you little shit."

Still wearing his helmet, the private crouches, bends over, and plants his head on the ground, the cold snow digging into the nape of his neck. There's a thought he has whenever something like this happens: This is just a play. That bastard is playing the role of a corporal, and he himself is playing a private. But he has absolutely no aptitude for playacting.

He thinks about how puny and foolish a being he is. If there's anything he's learned by coming to the military, it is that. It's as if the enormous machine called the military existed to teach precisely this lesson, and men like his commanding officer—and even his peers, like Corporal Choi—are conspirators faithfully executing their mission to that end.

During basic training, he often suffered because he had to pee at night. Maybe it was because he was tense. He had to wake up five, six times a night to pee, but, according to regulations, you couldn't just run to the latrine whenever you had to go. Trainees were required to leave their quarters in groups of three. Once, he'd awakened before dawn with an unbearable urge to pee, but he could not bring himself to wake the guys who were fast asleep at his side. The night watch would not let him go to the latrine alone, and after a long ordeal, clutching his swollen balloon of a bladder, he had no choice but to rouse his neighbors. But they got angry and refused to get up. When it got to the point where the urine was about to dribble out, he crawled back onto the sleeping platform. He took out his canteen, covered up with a blanket, lay down. And, in the darkness under the blanket, he pissed into the canteen, grinding his teeth in agony. Feeling the weight and heat of the canteen in his hands, he realized that he no longer had anything left into which he could relieve himself. At roll call that night, the officer on duty inspected their canteens, of all things. While his was being opened, he prayed that the duty officer's nose was stuffed up, but the officer was not congested, and when he flipped the canteen upside down and poured out its contents anyone would have realized that what fell to the floor of the barracks was not water but urine. He wasn't able to come up with a plausible explanation for why his canteen was filled with piss. That was when they started treating him—almost officially—like an idiot.

"Hey, punk! On your feet!"

Suddenly, the corporal pulls him by the arm, whispering sharply. Then, still bent at the waist, he skitters like a squirrel to hide behind a boulder. The private awkwardly follows behind the corporal, peering into the darkness, where he's already in a perfect sitting position, ready to open fire.

"Hands up!"

"Hey, it's just me," a voice says.

A dark human silhouette is visible among the bushes on the hill that rises up from the barracks. From the sound of the voice, it's probably the staff sergeant on patrol. But the corporal doesn't care and yells loudly once again.

"Hands up!"

"Damn it! I said it's *me*. Patrol."

Because of the snow and the cold, the patroller probably just wants to do a quick lap and go crawl back under his blanket again. But the sharp and rather unpleasant sound of metal scraping metal that follows stops him in his tracks. The corporal has worked the charging handle on his M16, chambering a round. The patroller abruptly raises his arms.

"About face."

The corporal's voice isn't very loud, but it has authority behind it. Even as he grumbles, the patroller, arms half raised, can only meekly obey.

"Hotel."

"Pillow."

"Who are you?"

"Patrol."

"Your business?"

"*Patro-ol.*"

The corporal asks the questions one after another, according to regulations, his tone very serious. To the private, he seems like a kid carried away with playing war, and the private shudders with trepidation.

"About face! Three steps forward toward the sentry."

The patrol steps closer, and the

corporal finally lowers his rifle and salutes smartly.

"*Loyal-ty!* All quiet during duty."

"Good, good. Very sharp. Who's the other guy?"

The private steps forward, answering with a barely audible mumble.

"It's the college boy! Did you remember to bring your weapon today?" the patrol asks with a sideways glance.

The private feels the familiar humiliation but remains silent. He knows full well that when people call him "college boy" they mean the opposite.

On his first day of guard duty as a private, he'd come out to the post and left his rifle behind in the barracks. What made it worse was that he hadn't even realized he'd done so until he was caught by the patrol. It was his first time on guard duty and he was terribly nervous, but how he could forget the all-important rifle even he could not comprehend. After that, they all called him "college boy" instead of "dimwit," and he guessed that between the two labels there was a hierarchy more complicated than a simple degree of humiliation.

The patrol looks around the guard post once. With nothing else to do, he tosses out a few words, as if he felt guilty having to go back without accomplishing anything. "Do a good job," he says. "Who knows, maybe you'll even make the papers and they'll reward you with a leave."

"Damn—what are you gonna find? It's not like we're gonna catch a seal up here in the mountains."

"What's with a seal? If you're lucky, maybe some bug-eyed mutt will come by—in a *low crawl*." The staff sergeant snickers as he walks back down the hill.

Not long ago, there had been an incident at a base on the coast. A soldier on night watch discovered a mysterious form crawling up the beach. He gave the command to halt, but the dark shape continued to advance, so he opened fire. It turned out that the creature was just a seal. The story was that the lucky soldier who shot it was granted a leave in recognition of his exemplary night tactics and "one shot, one kill" marksmanship. They'd read that story in a newsletter and—just last night—had had to listen to the unit commander lecture them on the need to be especially alert on nighttime guard duty. He'd used that lucky soldier as a motivational example.

"Do you know what it feels like when someone holds his hands up in front of my sights?" the corporal blurts after the staff sergeant has disappeared into the darkness. With a flourish, he pops the magazine out, unchambers the seated cartridge, and slaps the magazine back in. "I just wanna waste him."

The private is instantly chilled—he knows that the corporal isn't joking. He shoulders his rifle more tightly and its hard stock digs into his side.

The trigger—as the marksmanship instructor always said in basic training—needs to be squeezed gently, like your girlfriend's tit. But the private never understood the comparison between the particular coldness of a metal trigger and a girl's breast. . . . It's like that with everything for him, but he's especially bad at marksmanship, so bad that he hasn't qualified on the range even once since he began his military service.

Which is why, to this day, he has never been allowed to go on leave. Every time his turn comes around, his name is left off the roster. After three or four such occurrences, he went to see the company commander.

The C.O. was the sort of man who never took off his hat and sat ramrod straight at his desk, as if he were under inspection. When the private told the C.O. that he wanted to know why his name was left off the order logs for leave, the reply was "That's obvious. You can't go out on leave."

The C.O. did not open his mouth again. He just glared up from under the low bill of his cap, his eyes slits.

After a long moment, the private asked, "Sir, may I know the reason?"

"You failed to qualify in marksmanship. You fail marksmanship, you can't leave the base. That's my policy."

He had no choice but to retreat then. But he could never qualify in marksmanship, so, as expected, he was left off the next list as well. Once again, he went to see the company commander, but this time—because the C.O. was extremely annoyed—he was literally kicked out, his shins left black and blue. And yet he still tirelessly went back to the C.O. every time a new list was posted.

"I just cannot qualify in marksmanship, sir. My eyes are terrible."

"Then why don't you get glasses?"

"Sir, to get fitted for glasses I need to leave the base."

"Then qualify in marksmanship!"

He knew it was reckless, perhaps laughable, but he could not give up his protest. He himself had no idea why, even as he was engaged in the act. Kicked in the shins, threatened with a stint in the stockade for insubordination, yet still he doggedly sought out the C.O.

"Are you *protesting* against me?" the C.O. said at some point, exasperated. "A *demonstration*—is that it? It must be second nature for you."

In the end, the private couldn't tell whether he refused to give up on this reckless and foolish behavior in order to prove that he wasn't an idiot, or because he *was* an idiot. Eventually, he even became afraid that the C.O. might actually grant him the leave.

"Hey! How many minutes?" the corporal shouts.

Once again, the private makes an effort to look at his watch.

"Now . . . it's been an hour and ten minutes."

"So how many minutes left?"

"Around fifty minutes."

"Ugh, this is unbearable. Unfucking-bearable," the corporal says in a voice that sounds like chattering teeth. The private looks up at the countless snowflakes disintegrating into the empty air. The sky, the barracks on the far side of the hill, the hills and fields scattered all over the country aren't visible; the only things he can see now are snow and barbed wire. There's nothing left in the world but barbed wire. Funny—that's what they're guarding. The barbed wire.

"Corporal Choi, where is your home?"

"What? *Home*?" The bastard answers in a loud voice, as if he'd never heard that word before.

The two of them are stamping their feet, walking in place without rest. It's partly because their feet are cold, but, also, if they stopped moving even for a moment their ankles would be buried in snow. After a long while, the corporal opens his mouth again.

"Fuck, you're just full of useless questions, aren't you? Our place is on top of the mountain in Sadang-dong, in Seoul. Quite a sight. Couldn't afford shit, but they bred a big litter in a house the size of an apple crate. Family of six, crawling all over each other.

"Hey, you know who I hate the most in this world?" the corporal asks suddenly. "It's my old man. Day in, day out, he comes home after getting shitfaced and beats us kids like it was his job. The old lady's a real piece of work, too, calling that man a husband, playing dead like a mouse in front of a cat—not a squeak. Truly pathetic. So, the second person I hate most in the world? None other than her." The corporal forcefully kicks the snow under his feet.

Out of nowhere, the private feels a strange urge to console him. The corporal is glowing, his eyes like a beast's, but his voice is a young child's, starving for something. Under the falling snow, the private feels as if the two of them were the sole survivors of a shipwreck, clinging to a rotten plank in a vast ocean.

"How is it that you've only learned to resent the world?" Those were the words of his major adviser in college. Of all the things he'd said, that was what pierced the private's heart and, for some reason, felt more insulting than anything else.

He looks at the corporal and thinks, How is it that you've only learned to resent the world?

A month ago, while washing the dishes in an icy creek flowing next to the barracks, the private received a message to come quickly to HQ. He was being ordered to ready himself for leave immediately and to report to the company commander. He ran to his quarters, taking off the rubber gloves that had frozen stiff on his hands, confused about what was going on.

When he stepped into the unit's admin office, the C.O. handed him a sheet of paper. It was a letter notifying him that his father had passed away. "Three nights, four days special leave," he said. "Starting today."

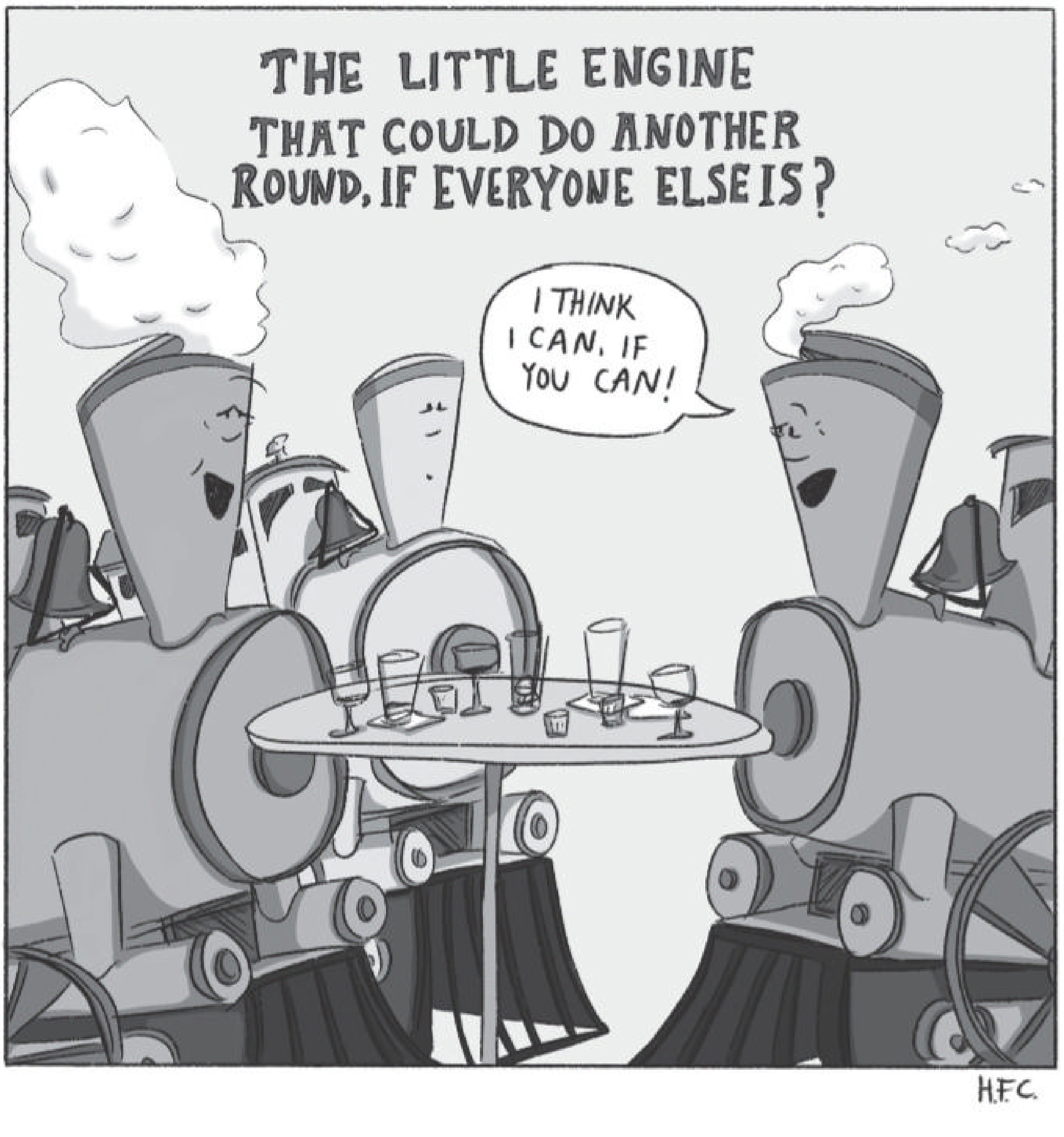
As the private was about to leave, the C.O. called out to stop him. "You! You wouldn't be planning on going AWOL, would you?"

He did not answer. He had to change long-distance buses twice and go through four checkpoints to get to Seoul, and by the time he got off the night train, in Busan, it was dawn. When he entered his house for the first time in more than half a year, his brother was wearing a hempen funerary hat, his face blank. He seemed to have aged to the point where you could no longer tell how old he was, and their mother just lay there facing the wall. It all felt surreal to the private. His brother crossed the narrow room to move the folding screen that stood there a bit precariously and told him to look behind it. He lifted the end of the thin shroud and saw the face of the corpse.

"He started drinking a lot after you entered the service," his brother said behind him, his voice hoarse and faltering. "You know he had to avoid alcohol because of his blood pressure. One day, he came home after drinking a ton, and then he just couldn't get up. We didn't even have time to do anything." It sounded like he was making excuses.

His father was an elementary-school vice-principal put out to pasture in the countryside, waiting for retirement. When the private had come home, wanted by the law for avoiding military service, his father had held him by his side and called the police himself. He was handcuffed in front of his father, and fifteen days later he was sent off to basic training.

It was a three-day funeral, but two days had already passed by the time he arrived. They buried his father the next day on a hillside outside town, among countless other grave mounds that swelled up from the earth like large, scabby boils. The day before returning to the base, he went to Seoul. As always, the air at the entrance to the university campus was filled with tear gas from the riot police quelling the constant student demonstrations. Familiar faces gathered to greet him; their throats were hoarse, and they were enjoying their debates, as usual. And no one got drunk as quickly as he did. Seeing his old friends, he felt a combination of envy and betrayal, the way a


THE LITTLE ENGINE THAT COULD DO ANOTHER ROUND, IF EVERYONE ELSE IS?
I THINK I CAN, IF YOU CAN!
H.F.C.

child does after experiencing something he shouldn't have. When they sang the familiar songs, he was silent, and when they finished he started singing alone. *The match girl who works in a match factory in Incheon* . . . It was what he'd sung during basic training, a song that taught the soldiers how becoming shameless helps one forget the pain. He raised his voice especially at the part where the girl's pubic hair gets burned off as she tries to smuggle a matchbox under her skirt, but when he came to the end there was no one left beside him. He returned to base a day earlier than the date printed on his pass.

"Want to hear a funny story?" The corporal seems talkative now, for some reason. Thick snowflakes are beginning to pour down. The corporal tilts his head back to look up at the sky.

"I told you before that I worked in a bathhouse, right? I'm at some bathhouse in Miari at ten o'clock at night after we finished all our work, and the owner lady calls me over. She's a widow who lives by herself—doesn't know where to spend her money. When I go in and see her laying there stark naked next to the tub, I can't breathe. She's a real heavyweight, must weigh more than a hundred kilos. Well, the bitch says to me—laying there—'Mister Choi, come here and scrub my back.'" He mimics the woman's nasal tone perfectly.

"You know what I did? As I gently scrubbed her back, I politely told her something: 'Lady, you'd be an eyeful hung up like this at a butcher shop.' Then the bitch starts screaming at me. Her eyes are bugging and she's calling me an idiot that doesn't know his place, and says how I'm talking shit. Before I knew it, I was strangling her. She flailed around at first, then her eyes rolled back in her head. I guess if I'd applied a bit more pressure she woulda been a goner. I packed my bags and left right away. But you know what? After that, that feeling of grabbing her fatty flesh with my hands—it wouldn't go away. Like that unsatisfied feeling you get when you don't finish what you started."

Suddenly, the corporal's voice is oddly sombre. He pauses for a moment before he continues. "I mean, after that happened, even when I'm walking down the street, if I see someone with a fat neck I want to grab them and strangle them with my bare hands."

The private laughs, but it sounds too deliberate, and he realizes that it might seem inappropriate or fake.

"I'm not kidding!" the corporal says, his voice harsh. "You stupid fuck." He adds, "What this world needs is a war to kill off about half the population."

"Corporal Choi," the private says, "if a war breaks out, don't you think that you might die first."

"Why would I die, you moron? I know I'll make it out alive. And, even if I *do* die, it doesn't matter. It's chance, anyway. It's all a matter of who kills who first and survives. That's more than fair."

"That's the wrong way of thinking about it."

"What's wrong about it?"

The private is frustrated and depressed. He wants to say something but can't figure out what. He can't escape the helpless feeling of knowing that words won't change anything. "Whatever the case . . ." he says. "No one should die. That bathhouse lady, your father or mother—even you. No one deserves to die."

"Oh, fuck off! Are you lecturing *me*—your *superior*—because you got some

PUT MY HOUSE

Put my house
inside the
boat

Can we do
that

put my dog
inside
of your
dog

put these birds
inside of
yours

put my ocean

put your ocean
all over
my mountains

put my mountains
in there

put my dog
in yours

my dog walk
is safe
inside your
dog walk

let me
eat inside
you. Let
me eat
your food

let me eat
your house

put your house
inside my
dog

put your dog
on my
boat

naturalize

put my heart
in yours

put my mouth
on your
mouth

put my hair
in yours

let me breathe
inside you

let me smell

your guts

put your boat
in my eye

let me eat
your friends

put these hours
inside your
hours

eat this bird
cheep

eat my
dog's
foot

eat that ocean

run to him
o'er the
o-o-cean

run to them
hear these
birds cheap

fly to me
eat my foot

put my house
inside yours
in your
mind think
me fly

this fly
me home
love me
now

forget your phone
eat my heart

run to him
o'er the o-o-cean

tweet tweet
tweet

dog growl

cluck

click

put my house

right in

there. Yeah

that's me
lookin out

the window

look at

me

bark bark
bark

put your heart
inside

that bark

—*Eileen Myles*

education?" The corporal turns around, his eyes gleaming with hostility in the darkness, and pokes the private with the end of his rifle.

Because his feet are freezing, the private can only march in place. "Corporal Choi," he says, "can I tell you a story, too? Though I don't know if it would be considered a dating story. . . ."

"You shoulda told it in the first place, *dumbass*. O.K. Go on."

But the private briefly tilts his head back and looks up at the sky. Snowflakes are falling, countless, glowing like embers.

"Hey! What are you waiting for?" the corporal yells impatiently. "Don't leave me hanging."

It was a Sunday, a few weeks back. A choir from some church in Seoul had come on a morale-boosting mission to the Field Church, the small church on base. The inside of the church was colorfully decorated like an elementary-school classroom ready for show-and-tell. The conductor was a man, but the choir was all young women, and most of them seemed to be college students. The whole time they were singing pop songs for the troops, he was looking at one woman in the front row. Why, amid those many faces, did she catch his eye? Was it the out-of-style perm that didn't suit her despite the high hopes that must have taken her to the hair salon? Maybe that's why she looked more awkward, more needlessly nervous, than any of the other women, her face serious like that of a child singing a hymn. She blushed when she noticed his gaze. At first, she avoided eye contact, but then gradually, cautiously, she looked at him until she couldn't take her eyes off him, and her face blushed even redder.

After the singing, the women and the soldiers played a game in which they were paired up as couples, and it was just his luck that she was his partner. When the conductor had them line up in front, holding hands, hers were rough. Her knuckles were larger than his. "What kind of a soldier has such small hands?" she whispered, her voice low, as if she were out of breath. Those were the first words she said to him.

The conductor was a lanky man with a friendly smile pasted onto his face like a Sunday-school teacher. A guitar hung around his neck, and he occasionally told a joke, treating both the women and the soldiers like children. Sure enough, every time he said something the women tittered like well-behaved schoolkids, as if they had rehearsed. The game was a contest to see which couple would be the first to finish the task announced by the conductor. There were challenges like finding Bible verses, or things like "one military sock and one lady's stocking," and the private and his partner always did well, because the woman worked harder than anyone else.

"Now I will pose the final question," the conductor said as the game reached its climax. "It's the thing that is the easiest yet hardest thing to find in the world. What is it? *Love!* Find love and bring it here."

The women and the soldiers, who had been laughing and joking up to that point, all fell silent. But the conductor was making a serious face, as if to show that it was no joke. The soldiers complained. In that moment, the woman whispered to the private, "Let's go up." She ran up to the conductor, pulling him by the arm.

The conductor exaggerated his

surprise and asked in a theatrical tone, "Have *you two* found love?"

"Yes!" the woman answered, breathless, ever the model student.

"Then will you *show* us?"

She turned and looked straight at the private, her face, as small as a child's, flushed red. Until then, he had not even been able to guess what the woman was thinking. Everyone was looking at them. She seemed to hesitate for a moment, but then she suddenly lifted her arms and wrapped them around his neck. By the time he felt her face coming closer, her lips had already touched his. The women all sighed, and the soldiers cheered and applauded loudly. But after the woman's lips retreated, after the stolen kiss that had lasted for the blink of an eye, he just stood there like an idiot.

"*What*? That's *it*?" the corporal exclaims when the private stops talking.

"Yes, that's the end of the story."

"Dumbass. You said you were gonna tell a dating story. Why's it so dull?"

Now the private regrets telling the story. It feels as if he's been insulted, as if something has been tainted.

"So how did it taste?" the corporal asks, licking his lips, unsatisfied. "Why didn't you just bite 'em off and swallow?" His face says that he could not be more disappointed that such luck hadn't come to him. "How much time left now?"

As the private is about to peer at his watch yet again, the two of them simultaneously sense that something is off, and as they have that realization they hear a loud noise—the empty cans hanging from the barbed wire clattering in alarm. In an instant they are on the ground, flat on their stomachs. A black silhouette, darker than the night, is caught on the barbed wire, and there is no doubt that it is human. The private presses himself into the ground. An icy shudder shoots up his spine and his entire body trembles as if he were having a seizure.

"Who—who is it?" It's the strangled voice of the corporal. But there's no sound from the darkness.

"Answer! I asked who is it. I'll sh-shoot!"

"D-don't shoot . . ." The voice comes out of the dark after a long while. "I'm . . . n-not a spy. . . ."

It's the voice of an old man shaking in terror, too drunk to manipulate his tongue. He's hunched over, frozen stiff, unable to say anything more. Only his heavy breathing is audible. He sounds like a sick animal.

The private feels a strange sense of disappointment along with relief. It is probably a local farmer who got caught in the barbed wire as he was stumbling around drunk. They must not have heard him crossing the field and approaching the barbed wire.

"Let's do him," Corporal Choi says in a hushed voice.

"What do you mean, 'do him'?"

"I mean, shoot him."

"Are you crazy?" the private says. "The man's a *civilian*. Can't you see?"

"Shut up, you stupid fuck."

The corporal jabs the private's side with his elbow and lowers his voice. "I'll take care of it, so you just keep your trap shut. Who's gonna know? The story is an unidentified intruder kept coming closer even when we challenged him and ordered him to stop. In a *low crawl*, I mean. Not a seal but a *real infiltrator*."

The private gets goosebumps. Not because of the corporal's words but because, in that moment, he understands what he himself is feeling. What he feels is definitely the urge to kill. It is hard for him to believe, but the life of a human being hangs on the tip of his finger. As his heart pounds, he feels a suffocating fear and an urgency, as if he were holding in a necessary bodily function. As that fear and urgency grow more intense, the desire to kill becomes clearer and more real.

The old man is not budging; he's like a target set up on a firing range. The private feels the cold and rigid sensation of the trigger on his finger. If he were to move it, just a little, this silent frozen darkness would be instantly shattered and a human being would die bleeding—perhaps the entire world would shatter.

When the impulse becomes irresistible, the private yells out to the old man, "On your feet!"

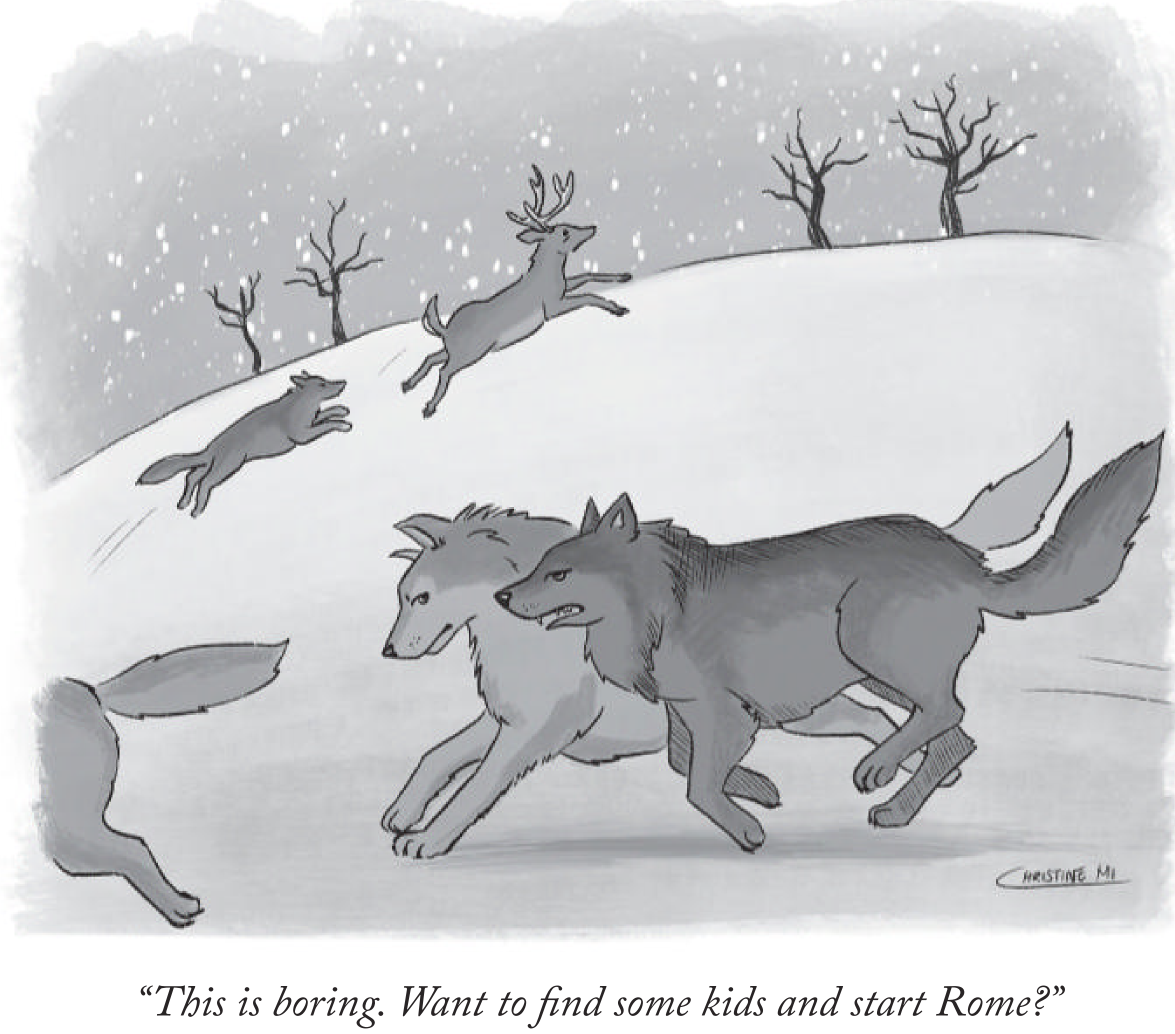
A sharp metallic sound cracks the air and echoes in the night. It's a horrifying sound. The corporal has pulled back the bolt and chambered a round.

"What are you doing, you idiot?" The private instinctively grabs the corporal's arm.

"Huh? Are you serious? You insolent grunt!" the corporal yells as he gets up.

But the private does not release his arm and the two tumble to the ground again, grappling. The corporal screams in rage, trapped under him. "Let go, you fuck! Let go! I'm gonna shoot!"

The private suddenly realizes that his ears have stopped working. The strength is draining from his arms. At first, he is disoriented, but then he feels his chest burning and hears the



"This is boring. Want to find some kids and start Rome?"

sound of the corporal's terrified voice.

"I *shot* you. I really shot you."

The private sees that his body has crumpled to the ground, and he feels the cold earth against his cheek.

"I didn't mean to," the corporal whimpers. "Private Kim, I really didn't mean to shoot."

The private touches the right side of his chest. There's something sticky and wet on his hand. But, strangely, he feels no pain at all, only that his arms and legs are now unresponsive, as if they belonged to someone else. His whole body feels heavy, as though it were sinking into the ground.

"What do I do now?" the corporal says. "Oh, *no!* What am I gonna *do*?"

The phone in the guard post is ringing and ringing, again and again. They are probably checking in with each post to determine the source of the gunshot. But the corporal just sits there, flat on the ground, crying like a child.

The private musters all his remaining strength to lift his leg and kicks him. "Get up! Hurry, get up and do what I tell you!"

He can't tell if the corporal can even hear him. He tries to be as loud as he can. "First, get rid of that guy. Quickly . . ."

There's no need now. Even with his dimming vision he can make out the shape of the old man stumbling over the snow-covered furrows in the field as he runs away.

"Now."

The private suddenly feels a strange euphoria. For the first time since entering the military, he has escaped formation and can be himself. Not a soldier but a human being. He opens his eyes wide, tears them open. The image of the corporal collapsed beside him is receding, blurring into the distance.

"Take out your magazine and replace it with mine. The rifle . . . I'm the one who fired it. *I'm* the one who misfired. Got it?"

But the corporal just looks at him blankly, still sitting there on the ground. The ringing of the telephone sounds ever more urgent. He tries to kick the corporal again, but already his foot does not respond. All he can manage is to draw up a shallow breath from deep within his throat and shout.

"What are you doing, idiot?"

The corporal finally stirs. The private is trembling violently. He watches the corporal's every move.

"Good . . . Now . . . answer the phone. Report . . . there was an accidental weapons discharge."

He suddenly realizes that his plan is laughable. Nothing can change reality, the private thinks. The bastard fired, and I got hit. But I am merely spinning it convincingly, like a scene in a novel. To prove I'm not an idiot? To show I'm not an impersonal and anonymous soldier but a unique human being?

His throat tightens and crackles with thirst. His parched tongue spasms painfully. Even as his entire body trembles, as if he'd caught a chill, a wave of sleepiness washes over him.

"Private Kim! Please, wake up. . . ."

The sound of the corporal's tear-filled voice is hazy, coming from very far away. There's something he must tell the corporal. He hurriedly gathers his thoughts, panting with effort, but he cannot figure out what it is. He must remember, quickly. There is no time. . . . Suddenly, he recalls the woman's face, flushed as if she were about to burst, looking up as she wrapped her arms around his neck. He vividly recalls the touch of her lips, the feeling it left behind, burning him with fire.

"I'll come visit. On the day of the first snow. You'll wait for me, promise?" That was what she whispered into his ear as she left after the choir's morale-boosting visit. Now—regardless of what happens in the future, whatever his fate—one thing is certain: he will never see the woman again, and that is the cause of his greatest despair. He is completely drained, and yet, still, he has to will himself, with all his might, to fight back the surge of tears, and before he knows it the snow has stopped falling.

"Miss? This is really unfortunate. . . ." the staff sergeant said, sticking his head out the window. "Um . . . they say he's been evacuated to the rear."

"What do you mean, 'evacuated'?"

" 'Evacuated'? It means he was sick and got sent to the hospital."

With a doubtful expression, the woman shifted her gaze back and forth between the faces of the two soldiers.

"You came here all the way from Seoul. . . . I'm sorry, but you're going to have to give up and go back."

"How sick is he that they needed to send him to the hospital? Which hospital?"

As the staff sergeant began to mumble something, looking panicked, the sergeant quickly butted in. "How should we know? In any case, he's not here, so you can't visit him. Do you understand?"

The woman gave him a puzzled look, as if she had no idea what he was saying, and after a moment she silently picked up her bag. It felt very heavy. She thought of the food inside that would be cooling and hardening.

"It's really too bad. Of all the days you could have come . . . The buses probably stopped running, so you'll have to find a room at an inn in town!" The sergeant called out to her, crinkling his long nose, as she left.

The woman bowed her head toward the guard shack and, covering her face with one hand, walked quickly past the sentry. But just a few short steps later she was walking like someone exhausted, her shoulders drooping, the bag almost dragging on the ground.

"Just can't figure him out," the staff sergeant said. "Of all the things—why would he go and do that the day before a woman comes to see him?"

"Wait a minute. . . ." The sergeant suddenly stood up, putting on his cap. "I'll be back in a couple of hours," he said. "It's not right for a man to just let her go off like that. Least I can do is get her a room."

"Hey, you trying to make trouble in your last year of service?"

"All that Army chow and you still haven't got any sense. Don't worry, I'll watch my mouth."

"Just your mouth? Nothing else?" the staff sergeant called out.

But the door to the guard shack had already closed. The sergeant caught up to the woman in no time. He could be seen busily making conversation and reaching to take the woman's bag. The two argued over the bag between them, but in the end it looked as if the sergeant's stubbornness won. Once the woman had given up the bag, she followed the sergeant obediently, like someone who has lost everything. A flock of birds hiding by the roadside flew up and scattered in front of them. ♦

(Translated, from the Korean, by Heinz Insu Fenkl and Yoosup Chang.)

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Lee Chang-dong on writing and filmmaking.

THE CRITICS

POP MUSIC

SHOCKING THE CONSCIOUSNESS

The New Age sounds of Laraaji.

BY AMANDA PETRUSICH

In 1969, Edward Larry Gordon—a standup comedian, part-time jazz pianist, and aspiring actor—walked into a New York City pawnshop, hoping to hock his guitar for rent money. Instead, Gordon found himself preternaturally drawn to an Autoharp, a type of zither popularized in the nineteen-forties by Mother Maybelle, of the Carter Family, and prominent in the folk revival then going on in Greenwich Village. He lugged it back to his apartment in Harlem and started tinkering, eventually prying off the chord bars (which allowed him to more easily experiment with pentatonic, modal, and minor tunings) and adding a contact pickup (which electrified the instrument). Soon, Gordon was playing the Autoharp through effects pedals, and cramming various odds and ends, including chopsticks, mallets, and pedal-steel slides, underneath the strings—a technique popularized, for piano, in the nineteen-thirties, by the experimental composer John Cage. Gordon's Autoharp no longer sounded dainty or sweet. It was now fierce, glimmery, and extraterrestrial.

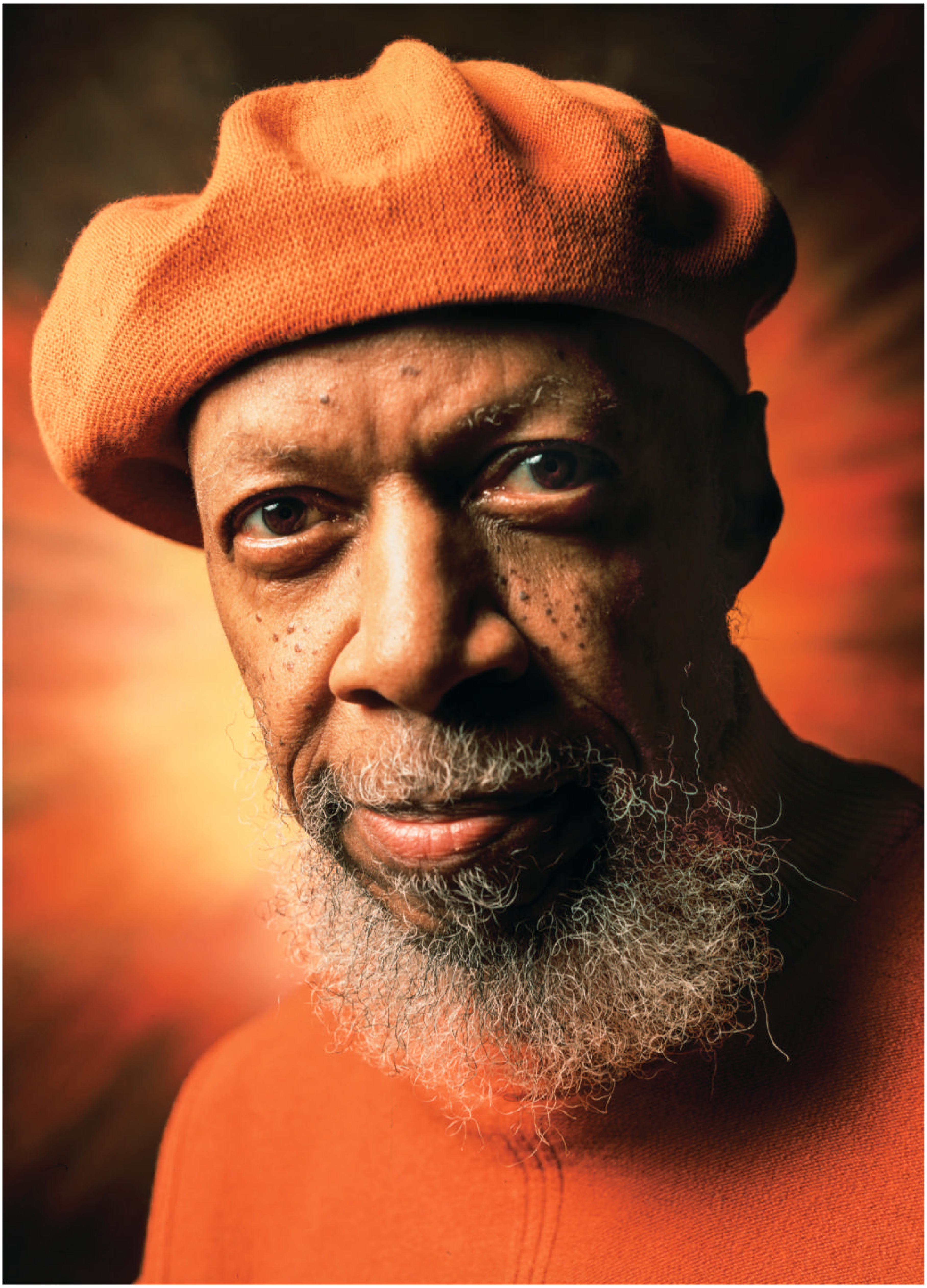
Gordon, who was born in Philadelphia in 1943, was perhaps compelled toward the Autoharp by some Elysian force. He had recently become interested in mysticism and Eastern philosophy; years later, he would describe himself as "a conduit, a channel, and a medium." He started busking with the modified Autoharp in Washington Square Park, and brought a kind of tranquil, rapturous energy to the downtown scene. "As best I can recall, during the seventies, I was very much involved in the cannabis, barefoot dancing, new age experimental, meditation circle, and improvisational music culture," he has said. In 1978, he released "Celestial Vibration," his début album, on a new independent label called SWN. In 1979, Gordon changed his name to Laraaji Venus Nadabrahmananda and started working with the electronic musician and producer Brian Eno, who heard Laraaji playing in the park and dropped his phone number in the collection basket. The following year, Laraaji and Eno released "Ambient 3: Day of Radiance," a hypnotic, pulsing instrumental album featuring a thirty-six-string zither and a hammered dulcimer. More than four decades later, the record still feels like an emanation from another plane.

Laraaji will turn eighty later this year. He has put out more than fifty albums, and continues to make new work. In addition to his music, he has taken to spreading the gospel of laughter as a transformative force. Every Thursday morning, on Dublab, an Internet radio station based in Los Angeles, Laraaji leads a three-minute "laughter meditation," in which he chuckles, hoots, and guffaws, sometimes over pinging, atmospheric sounds. He has said that he thinks of laughter as "a luminous language, a language of lightness, of brevity, of vulnerability." For the past few weeks, I have tuned in to the meditation with my one-year-old daughter in my lap. She finds the broadcast strange and hysterical. Laraaji believes that even a forced smile can open something up in our brains. He has described a good laugh as a "ventilation of your system." My daughter giggles; I giggle. She removes her tiny socks and tosses them in the air. Maybe something shifts in us. It is a nice way to start the day.

"Segue to Infinity," a new four-disk boxed set from the Numero Group, collects some of Laraaji's earliest work, including "Celestial Vibration" and three LPs of previously unreleased studio recordings. The new material comes from four twelve-inch acetates—lathe-cut disks that are used to make the molds for vinyl records—that were purchased on eBay, in 2021, by Jake Fischer, who was then a twenty-two-year-old college student with a hundred and twenty-seven dollars in his checking account. (He paid $114.01 for the lot.) The provenance of the recordings is uncertain; they might be outtakes from the "Celestial Vibration" sessions, which took place at ZBS Studios, in upstate New York (the disks are credited to Edward Larry Gordon, not Laraaji, which suggests that they date from before or around 1979), but a label attached to one of the acetates says that they were made at Crest Recording Studios, on Long Island, which would mean that they were culled from a different session entirely. Laraaji himself has offered a vague recollection, that they were possibly done somewhere in Queens. It is difficult to say for sure. (This is the sort of arcana—unsolvable, potentially meaningless, wildly tantalizing—that keeps amateur archivists and rare-record fiends up at night.)

The acetates were originally discovered in a storage-locker auction. The

ABOVE: LIANA JEGERS



In the late sixties, Laraaji became interested in mysticism, and described himself as "a conduit, a channel, and a medium."

PHOTOGRAPH BY ANDRES SERRANO

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first buyer sold them at a flea market; from there, they were offered online. As with any story of almost-lost recordings, it feels miraculous, if not fated, that they didn't end up slowly deteriorating in a landfill. These days, record collectors are often the only people willing to take on the thankless job of rescuing the idiosyncratic, usually noncommercial music released decades ago on vinyl by local independent labels (the so-called private press), thus building and preserving a kind of outré canon of the pre-Internet era. Fischer, now twenty-three, has been collecting records since he was a teen-ager. "Growing up with the notion that music always should be a click away on YouTube or Spotify spawned an obsession with finding the music the Internet left behind," he told me recently. "I became fixated on finding as many acetates, private pressings, and home recordings as I could get my hands on, from thrift stores, dollar bins, online shops, junk yards, warehouses, abandoned barns, boxes left on the side of the road, suitcases full of master tapes found inside Craigslist furniture." The eBay auction for Laraaji's acetates ended at 10:30 P.M. on a Wednesday. "I was driving home from McDonald's when I got the notification that I won," Fischer said. "The burger seemed to taste better than usual that night."

In the liner notes for "Segue to Infinity," the guitarist and producer Vernon Reid, who founded the rock band Living Colour, remembers once meeting Laraaji at a brownstone in Park Slope, Brooklyn. "I suddenly perceived the most remarkable, shimmering sound I'd ever heard, emanating from the living room," Reid writes. "There sat a spare, enigmatic gentleman in a meditative posture, strumming what appeared to be a small horizontal harp plugged into a very clean-sounding Fender Twin. I was utterly transfixed!" Soon afterward, Reid saw Laraaji perform at the Atlantic Antic, a legendary street fair in Brooklyn. "In that moment," Reid writes, "I realized I was with one of the world's great musicians, a leader of a still-formulating movement."

That movement, referred to as "New Age music," is both maligned and rightfully lampooned. Musically, New Age exists somewhere between the intellectual avant-garde and wellness hooey—between sound art and the pan-flute pablum that tends to ooze forth from the massage room at the spa. In recent years, there has been a resurgence of interest in New Age, perhaps because people have grown increasingly desperate for anything that might help them calm down, dissociate, space out, drift off, unwind, or crack open. Yet the genre's most critically celebrated practitioners tend to be radical. The music on "Segue to Infinity" is not exactly soothing. It's hard to imagine enjoying it with cucumber slices cooling your eyelids. Laraaji occasionally included sharp or abrupt noises to "shock the consciousness," an idea he said he borrowed from Tibetan sound rituals.

My favorite disk in the collection is probably the most dissonant. It contains two long pieces, "Kalimba 2" and "Kalimba 4," each taking up an entire side. I've found it impossible to do anything else while listening to it, which is perhaps the point. In the early eighties, Laraaji was experimenting with the kalimba, an iteration of the Zimbabwean mbira, a wooden board with staggered metal tines, designed to be played with the thumbs. (The kalimba was brought to the United States by the British ethnomusicologist Hugh Tracey, who also produced and sold the instrument.) When I listened to "Kalimba 2," a careering, rhythmic piece, too late at night, I felt dizzy and disoriented. Yet, if you listen at the right moment, it can feel as though you're surfing a mile-high wave. "Kalimba 4" is gentler and more mesmeric. Its repeating figures can induce a sort of trance state. I became different on a cellular level: softer, more neutralized.

"Segue to Infinity" can sound heavy and profound, which makes it easy to forget that, before he was Laraaji, Ed Gordon was hosting standup-comedy revues at the Apollo Theatre and taking bit parts in such satirical movies as "Putney Swope." But buried in these pieces is a kind of insistence on joy and transcendence. It is as though Laraaji is trying to teach us that, with help and focus, it is possible to exhale and unclench, even if it's only for the length of a song. ♦

BOOKS

MARVELLOUS THINGS

The worlds of Italo Calvino.

BY MERVE EMRE

Calvino loved the episodic storytelling of Ariosto, Boccaccio, and Cervantes.

The bookstore in your neighborhood sits on a busy corner. You pass it on your walk to work in the mornings, and on your walk home in the evenings, and although you sometimes admire the clever geometries of its window display, rarely do you take a closer look. But, not long ago, the sight of a particular book made you pause. Your eye lingered on its pure-white cover and on a curious shape cut into it. Without thinking, you walked into the store. The clerk was working at her computer. The other customers were leafing through books lifted from the great pyramids of new releases on the front table. No one paid any attention to you.

You reached for the book you had spotted. The author was Italo Calvino, whose name conjured up some vague impressions—an Italian who had risen to prominence after the Second World War, a writer of stories within stories. With your thumb, you flipped through the first few pages and, with the practiced efficiency of someone who never has enough time, you determined what the book was about. It was a book called "The Castle of Crossed Destinies," about men and women who, having been mysteriously struck dumb, were using packs of tarot cards to describe the adventures that had befallen them. Or it was a book called "Invisible Cities," in which the Venetian merchant Marco Polo described to Kublai Khan the far-away lands of his empire, and, as you turned the pages, the spires and domes of unreal cities rose and fell before your eyes. Or it was a book that opened by addressing you, the Reader, instantly transforming you into both a character and the narrator's confidant: "You are about to begin reading Italo Calvino's new novel, *If on a winter's night a traveler*. Relax. Concentrate. Dispel every other thought. Let the world around you fade."

You relaxed. You concentrated. The voices of the other customers grew distant, and, with each sentence of whichever book you had chosen, you plunged deeper into a story of chance encounters, magic objects, lawless crusades, and reckless loves. You discovered that this was a book of rapid cuts and quick dissolves that carried you from one character and setting to the next. At first, you believed you were reading a fable, but it soon turned into a quest, then a romance, then a utopia, with each episode as dramatic as the one that came before it. You felt that you were not reading a book at all but being whirled around a great library of books: here you glimpsed the beginning of one story, there the middle of another. But the end? The end was nowhere in sight.

Despite the otherworldliness of the story, its characters lived close to you somehow. The heroes were warmhearted, a little bumbling. The maidens were neither cruel nor insipid but daring, principled, and compassionate. The villains were not evil but merely small-minded. You looked around the bookstore and you saw it through the story's eyes. The woman with the glasses there, her hands fluttering above a table of slim translations—you could imagine the spells she might cast. And the brawny man in the camel-hair coat, weighing this season's rival political memoirs—what crimes had he committed?

The clerk cleared her throat to indicate that the store was closing. You made your choice. You bought the book and took it home, where you consumed it ravenously, ignoring the lights and the pings from your phone. When you finished, you were surprised to find that the story, burning

ILLUSTRATION BY DANIELE CASTELLANO

with passion and conquest, had left you with a sensation of grief. Why couldn't life be like that?

Italo Calvino was, word for word, the most charming writer to put pen to paper in the twentieth century. He was born a hundred years ago in Cuba, the eldest son of a wandering Italian botanist and her agronomist husband. Shortly after his birth, the family returned to Italy, where they divided their time between his father's floriculture station, in the seaside town of San Remo, and a country home sheltered by woods. When Calvino enrolled in the agriculture department at the University of Turin, in 1941, he seemed destined to spend his life grafting one marvellous thing onto another. But, two years later, when the Germans occupied Italy, he left school and fought for the Resistance. His first published stories, in the nineteen-forties, were about war and the horrors of the modern world; by the fifties, he was transmuting these horrors into fables, fairy tales, and historical fictions. Although he remained a dutiful member of the Communist Party for some time after the war, he broke with it after the Hungarian Revolution and, by the mid-sixties, had distanced himself from current affairs altogether. "My reservations and allergies toward the new politics are stronger than the urge to oppose the old politics," he wrote to Pier Paolo Pasolini in 1973, defending a decision to withdraw into literature. "I spend twelve hours a day reading, on most days of the year."

Calvino's era and his experiments with genre make it natural for readers to think of him as a postmodernist, a master of pastiche, an ironist, and a mimic—to class him with Jorge Luis Borges, Vladimir Nabokov, or the members of the OuLiPo, the French avant-garde literary society to which he belonged. Yet the essays newly collected in "The Written World and the Unwritten World" (Mariner), translated with no-nonsense precision by Ann Goldstein, remind us how enamored Calvino was of the craftsmanship of the pre-modern era; how he worshipped the wildly diverting, episodic approach to storytelling of Ariosto, Boccaccio, Cervantes, and Rabelais. These writers, he believed, came closest to the oral telling and retelling of tales, creating an "infinite multiplicity of stories handed down from person to person." The serialized novels of Dickens and Balzac were inheritors of this Scheherazadean tradition; Flaubert's "Bouvard et Pécuchet" marked its end. Calvino sought to reclaim the bond between intricate narrative forms and entertainment. In response to a 1985 survey, "Why Do You Write?," he declared, "I consider that entertaining readers, or at least not boring them, is my first and binding social duty."

What appeared new in Calvino's novels was, in truth, a resurrection of something considerably older: a romantic simplicity nurtured by a devotion to the archetypes of epic and chivalric literature. In Italy, he made his name with three books now known as the "Our Ancestors" trilogy. In "The Cloven Viscount" (1952), Viscount Medardo is halved by a Turkish cannonball. His right side becomes a sadist, obsessed with systems of torture; his left is now possessed by a sickly goodness and grace; both sides are in love with the same woman, Pamela. "The Baron in the Trees" (1957) sketches episodes in the life of a bookish young aristocrat who quarrels with his family and makes his home in the canopy of branches surrounding their estate, befriending animals, peasants, and thieves. In "The Nonexistent Knight" (1959), the eponymous soldier is an empty suit of white armor animated by a spirit named Agilulf, who follows the chivalric code to the letter but has no fleshly feeling for love or war.

Calvino's early fictions are romances of duality, set in worlds divided by forces of ritual and anarchy. The divisions are not subtle, but they are varied and delightful. Characters appear as doubles and opposites: Agilulf is shadowed by a passionate and unruly knight named Raimbaut. The tree-dwelling Baron's quixotic life is narrated by a younger brother who remains firmly on the ground. The bisected Viscount is his own mirror image. The brocaded feel of the medieval and early-modern settings from which Calvino drew inspiration is roughened by his voice, gently ironizing in tone, modern in dialogue, and always up for a good bodily joke. Indeed, for Calvino language, in its ability to at once divide and unite people, imposes its own kind of sundering. "We have no other language in which to express ourselves," the bad half of the Viscount explains to Pamela. "Every meeting between two creatures in this world is a mutual rending." His good half pathetically confirms: "One understands the sorrow of every person and thing in the world as its own incompleteness."

As in all romances, what is sundered in the beginning must be joined together at the end; the world and all the people in it must be made whole. Through Pamela's love, the cloven Viscount "became a whole man again, neither good nor bad, but a mixture of goodness and badness." Raimbaut eventually dons Agilulf's empty armor, uniting strong feeling and good form, and rides to the nunnery where Bradamante, the damsel-knight he pines for, has cloistered herself and is furiously writing the story we are reading. The Baron continues leaping through the trees until, one day, he grabs onto the anchor of a passing balloon and disappears into the sky. Yet the most memorable image in the novel is surely that of his mother, the Generalessa, lovingly signalling to her son with military flags. He seems to wave back. Their estrangement dissolves.

The Generalessa is a minor character, but the marriage of technique and emotion that brings her to life captures in miniature Calvino's theory of good fiction. To court only technique was to end up with hollow imitations of great fiction, like Alessandro Manzoni's "The Betrothed," a novel told in "a language that was full of art and meaning but lies on things like a layer of paint: a language clear and sensitive like no other but paint nevertheless," Calvino wrote. But to court only the ineffable mystery of life was to end up with "novels as dull as dishwater, with the grease of random sentiments floating on top." The painted novel lacked a beating heart. The greasy novel lacked a solid frame. It was Calvino's ambition, always, to merge the two in a flash of pure magic.

After "Our Ancestors," Calvino began to move away from the tidy doublings of romance. His fiction no longer tilted at a fantasy of epic wholeness but at the broken and scattered feel of modern existence. "Literature has been

"Support the head!"

fragmented (not only in Italy)," he observed in his essay "The Last Fires." "It's as if no one could any longer imagine an argument that would connect and contrast works, structures, tendencies, at the moment of invention, deriving a general meaning from the totality of individual creations." His novels of the seventies and eighties staged this argument implicitly, nestling stories around elaborate formal schema—the tarot spreads in "The Castle of Crossed Destinies," medieval numerology in "Invisible Cities." But not even these systems could restore what the modern world had lost: an organic connection between the word and the world.

The cities that Marco Polo describes to Kublai Khan in "Invisible Cities" have alluring women's names: Despina, Isidora, Dorothea, Theodora. There are fifty-five cities in all, and each corresponds to one of eleven types of tale that Marco Polo narrates—cities and desire, cities and signs, thin cities, and so on—so each of the eleven types appears five times in the course of the book. The novel begins in Diomira, a city of bronze and silver, inhabited by bewitched people whose happiness the visitor mistrusts and envies. It ends in Berenice, the unjust city, an inferno of greed, intrigue, and decadence, but which hides within its walls a suffering, just city that is also called Berenice. As Marco Polo describes it to the Emperor, both versions of the city are "wrapped one within the other, confined, crammed, inextricable."

What explains the mutability of Marco Polo's cities? A quarter of the way through the tales we learn that Marco Polo has no knowledge of Asian languages. Our storyteller has not been speaking at all but "drawing objects from his baggage—drums, salt fish, necklaces of wart hogs' teeth—and pointing to them with gestures, leaps, cries of wonder or of horror, imitating the bay of the jackal, the hoot of the owl." Relying on exotic signs, he is much like the characters in "The Castle of Crossed Destinies," forced to communicate with tarot cards. Both novels are records of mute speech—of the gap between what one person believes himself to be conveying when he manipulates an object and how another person interprets his manipulations. One person's city of beautiful memories may be another's city of nightmares, reflecting the existential homelessness of a world in which no one can be certain that people say what they mean or mean what they say.

A painful fear of misunderstanding emerges from these elusive fragments of stories, these elusive characters, and the highly artificial structures Calvino contrives to hold them together. That fear is offset in "Invisible Cities" and "The Castle of Crossed Destinies" by Calvino's utopianism—his sincere belief in a time and a place in which the novel's dream images of love and justice can be made real and shared, despite the anomie of mankind. As Marco Polo tries to tell Kublai Khan:

> At times all I need is a brief glimpse, an opening in the midst of an incongruous landscape, a glint of lights in the fog, the dialogue of two passersby meeting in the crowd, and I think that, setting out from there, I will put together, piece by piece, the perfect city, made of fragments mixed with the rest, of instants separated by intervals, of signals one sends out, not knowing who receives them.

There remains a small hope that someone will receive them, and, having received them, will decode them correctly.

The pain of misunderstanding is most acute and irredeemable in "Mr. Palomar," a properly tragicomic novel and Calvino's most affecting work. Mr. Palomar is named for the Palomar Observatory, in California, once home to the largest optical telescope in the world, capable of capturing objects in the sky at different scales and brightnesses. Unlike this tremendous apparatus, Mr. Palomar is a small human being, "a bit nearsighted, absent-minded, introverted." The things that present themselves for his observation are not planets and galaxies but waves, tortoises, cheeses, slippers, the breasts of a woman sunning herself on the beach, and, of course, himself—"the 'I,' the ego," which bears only the most tentative relationship to the world that surrounds it. Mr. Palomar's fragility seems mirrored by the novel's fragile structure: three sections, each branching into three subsections, these in turn branching into three slender vignettes; twenty-seven vignettes in total. They hardly seem enough support for an entire life.

But the sheer loveliness and good humor of the vignettes transform each sliver of Mr. Palomar's life into an expansive state of being. The rhythm of the waves, a flock of starlings, the blue veins in cheese, sunlight rippling on the sea—they hold a beauty and a mystery that Mr. Palomar contemplates with such intensity that he turns them into little universes of meaning unto themselves. The irony is that while we may see the infinite possibilities of his vision, Mr. Palomar himself cannot. "For some while he has realized that things between him and the world are no longer proceeding as they used to," Calvino writes. "Now he no longer recalls what there was to expect, good or bad, or why this expectation kept him in a perpetually agitated, anxious state." The only way to be in harmony with the world might be to absent himself from it altogether. In the final vignette, "Learning to be dead," Mr. Palomar tries to imagine the most obscure thing: the world after his death:

> "If time has to end, it can be described, instant by instant," Mr. Palomar thinks, "and each instant, when described, expands so that its end can no longer be seen." He decides that he will set himself to describing every instant of his life, and until he has described them all he will no longer think of being dead. At that moment he dies.

It is a terribly funny and terribly bleak ending. Yet even here one finds a flicker of hope. If each of the twenty-seven vignettes is an instant in his life, and if each instant, when described, expands forever, then at the moment Mr. Palomar dies he lives. And if he lives forever we need never reconcile ourselves to a world without him in it.

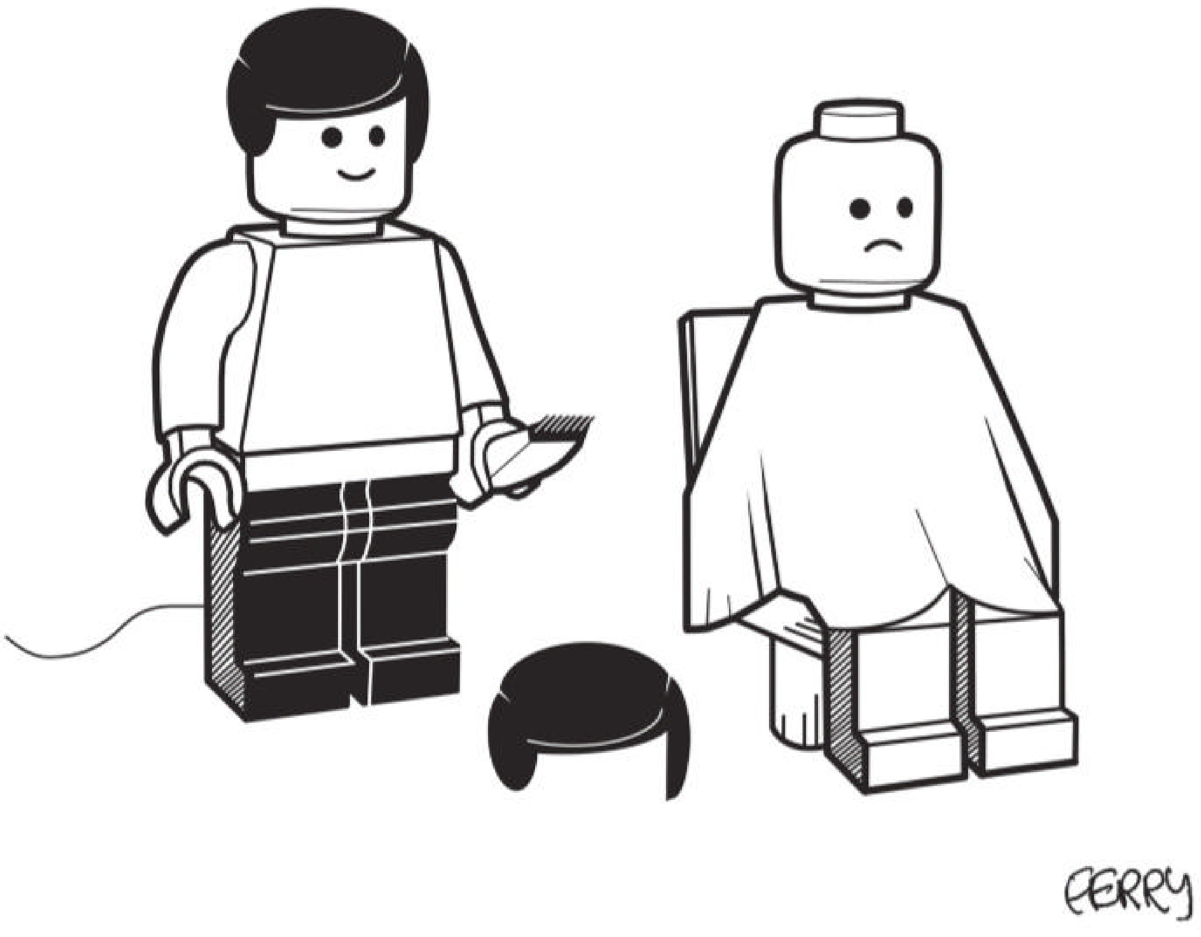
The book that gives us Calvino the romantic and Calvino the craftsman in equal measure is "If on a Winter's Night a Traveler." It is the book that makes people fall in love with Calvino, because it is a book about falling in love through reading—specifically, "reading Italo Calvino's new novel, *If on a winter's night a traveler*." In the beginning, you, the Reader, are transported to the bookstore where you choose "If on a Winter's Night a Traveler" out of the hundreds of books you could have chosen—only to discover, after reading the first thirty-two pages (about a stranger at a train station waiting for a mysterious suitcase), that there has been a printing error and the previous sixteen pages keep repeating. Returning the book to the store, you choose a different book, called "Outside the town of Malbork"—and, after reading one chapter, you find that it, too, is defective. You start another book, "Leaning from the steep slope," and another after that, and so on—reading the beginning of one novel after another, in a prolonged quest marked by frustration, deferral, and endless possibilities.

The opening chapters of the defective or incomplete novels alternate with chapters that describe the lonely inner life of you, the Reader, and your quest for both the book and someone to read it with. When you return to the store to exchange the first book, you encounter a woman named Ludmilla, also there returning a defective copy. You are hopelessly attracted to this woman, who becomes, in your imagination, the Other Reader. The Other Reader, however, comes with serious baggage. There is her sister, Lotaria, a militant feminist whose friends shout at you about "polymorphic-perverse sexuality" and "the laws of a market economy." There is the eccentric Professor Uzzi-Tuzii, an expert on Cimmerian, the dead language from which one of the books seems to have been translated. And there is the mysterious Ermes Marana, a translator who is either an operative or an infiltrator of a group or groups that mastermind an underground trade in counterfeited novels. Some of these are produced by computer algorithms; others by faceless ghostwriters who, in the guise of realism, slip in advertisements for liquor, clothing, furniture, and gadgets. The Reader senses that everything and everyone is connected through Ludmilla. But how? And, more important, what will you learn if you connect one book to another?

What you will learn, above all, is how little you know, and how little you can know, about the sum total of writings that make up the category of literature. In the bookstore, you must navigate a treacherous literary hierarchy, a battlefield no less daunting than those faced by medieval knights:

> You have forced your way through the shop past the thick barricade of Books You Haven't Read, which were frowning at you from the tables and shelves, trying to cow you. But you know you must never allow yourself to be awed, that among them there extend for acres and acres the Books You Needn't Read, the Books Made For Purposes Other Than Reading, Books Read Even Before You Open Them Since They Belong To The Category Of Books Read Before Being Written.

It is against the rank and file of unread books that the Reader makes the choice of what to read. Calvino's system of classification frees us from the typical hierarchies of genre—Serious Fiction versus Genre Fiction, Adult versus Young Adult Novels—and the tedious arguments that attend them. He reminds us that any choice one makes of what to read is made against a back-



drop of deep and humbling ignorance, and that any attempt to call a book the best or the worst book one has read this month, this year, or in this lifetime requires a necessary self-deception regarding one's own knowledge of literature.

This is an easy point to overlook, because Calvino's own knowledge is vast and profoundly appreciative. The proof is in the pastiche. "If on a Winter's Night" is a novel that refuses to begin, because it is all beginnings: as Calvino summarized it, "one novel made up of suspicions and confused sensations; one of robust and full-blooded sensations; one introspective and symbolic; one revolutionary-existential; one cynical-brutal; one of obsessive manias; one logical and geometric; one erotic-perverse; one earthy-primordial; one apocalyptic-allegorical." We hear little touches stolen from Tolstoy, Bulgakov, Tanizaki, Borges, and Chesterton. Clichés from romance, mystery, crime, and erotica are worked and reworked until they feel new again. Above these local effects booms the voice of the novel's antic, joyful, all-knowing narrator, a "brother and double" to you, the Reader, from whom the book keeps constantly slipping away.

The inability to read, or ever to read enough, is the challenge from which the desire to read draws its compulsive and erotic power. In "If on a Winter's Night," the inability to read is the fault of a decaying culture industry—a conspiracy of editors, publishers, translators, ghostwriters—that no longer puts much loving thought into how its products are created. It has replaced human ingenuity with the predictability of algorithmic style, craftsmanship with global production. On its watch, literature has ossified into a set of reverse-engineered reader responses. In contrast, "If on a Winter's Night" presents us with a narrator attuned only to Ludmilla's wayward desires. "The novel I would most like to read at this moment," Ludmilla declares in one chapter, "should have as its driving force only the desire to narrate, to pile stories upon stories"—and the next novel is precisely so. And in another: "The book I would like to read now is a novel in which you sense the story arriving like still-vague thunder, the historical story along with the individual's story"—and lo, her wish is his command.

In "If on a Winter's Night," the magic book is the book of counter-spells to the publishing industry's dark arts. It is the book that mutates according to the unpredictable urges of a reader, rather than the book that standardizes and dulls a reader's desires. It is the unfinished and unfinishable book; the book that is the counterfeit of all counterfeited books, their double and their negation. The peculiar inventiveness of the novel lies in the peculiar uninventiveness of the novels within it. Are they mass-produced imitations or originals? Good or bad? How can anyone tell the difference? The inability to see the object whole and entire drives the love story. The magic book lends itself to frantic, inexhaustible conversations with Ludmilla about its true nature—and those conversations lead straight to bed. The novel may throw the Reader and the Other Reader together, but their deeper connection emerges from the decision to speak, to argue, to interpret with each other the signs that appear on and off the page—a sensuous and intellectual necessity in a world where the words on the page matter to fewer and fewer people.

"If on a Winter's Night," despite its mingling of irony and earnestness, does not imagine the love between readers as a first love or even a young love. The choice that you, the Reader, make of which book to read, or which lover to take, occurs in relation to all the other books you have read, or all the other people you have loved. They lead you to an appreciation of this particular member of a genre, or species. This is the negotiation on which judgment—of books, of people—turns. The effect is not to diminish one's feelings by subjecting them to the language of classification. It is to expand love's purview to many different objects, or different people. Its multiplicity recalls Calvino's most exuberant outburst in "The Written World and the Unwritten World":

> I love Stendhal above all because only in him are individual moral tension, historical tension, life force a single thing, a linear novelistic tension. I love Pushkin because he is clarity, irony, and seriousness. I love Hemingway because he is matter-of-fact, understated, will to happiness, sadness. I love Stevenson because he seems to fly. I love Chekhov because he doesn't go farther than where he's going. I love Conrad because he navigates the abyss and doesn't sink into it. I love Tolstoy because at times I seem to be about to understand how he does it and then I don't. I love Manzoni because until a little while ago I hated him.

There is always a danger in reading Calvino straight. Can love—of people, of books—be this widely distributed and intense? When does multiplicity shade into duplicity or superficiality? As if to prompt these questions, "If on a Winter's Night" ends, surprisingly, with a scene of quiet domestic contentment:

> Now you are man and wife, Reader and Reader. A great double bed receives your parallel readings.
>
> Ludmilla closes her book, turns off her light, puts her head back against the pillow, and says, "Turn off your light, too. Aren't you tired of reading?"
>
> And you say, "Just a moment, I've almost finished *If on a winter's night a traveler* by Italo Calvino."

How clever the trick by which the character of the Reader and the reader of the book finish at the exact same time! And how convenient that you, the Reader, have been permitted to indulge in intellectual and erotic adventures without ever leaving the comforts of home! The fiction that began in the bookstore thus ends in the great double bed, where infinite books have dwindled into two books, infinite Readers into two defined people—man and wife. It recalls another bed, at the end of an encyclopedic novel that Calvino admired, "Ulysses," in which man and wife also pursue parallel readings of their lives and days. Yet where that novel ends with an ecstatic "Yes," this one ends with an implicit "No"—or, worse, a distracted "Just a moment, dear."

In this chaste bedroom scene, all is peaceful. All is settled. The disordered and disordering feelings of the quest—for a book, for a lover—have been subdued. "Do not wax ironic on this prospect of conjugal harmony: what happier image of a couple could you set against it?" Calvino asks. But if you, the Reader, happen to feel disobedient, you might eye with some suspicion the distance between the Reader of the beginning and the husband of the end. Were he to wake up the next morning and walk to work and pass the bookstore on the busy corner, would he stop to examine the book in the window? Would he open the door and step inside? Would he let his mind run away with him, then and there? Would you? ♦

BOOKS

WRITER’S BLOC

What a Serbian British novelist makes of her homelands.

BY THOMAS MALLON

Vesna Goldsworthy’s sharp-eyed observations clearly render both East and West.

PHOTOGRAPH BY SIÂN DAVEY

Vesna Goldsworthy’s life and work have involved multiple migrations: from Belgrade to London; from writing in Serbian to writing in English; from literary scholarship to memoir to poetry and then to the novel. To that last genre, she has now contributed three books, and the latest, “Iron Curtain: A Love Story” (Norton), is yet another departure, from skillful contrivance to full-throated voice.

The emotions of this well-conjured novel are raw, its observations acute. Goldsworthy is so intent on getting where she wants to go that, from the book’s earliest pages, she repeatedly—and artfully—telegraphs its bitter ending, thereby freeing a reviewer from the need to issue any spoiler alerts. (The first epigraph comes from “Medea”: “Stronger than lover’s love is lover’s hate. Incurable, in each, the wounds they make.”)

The book’s prologue is set in December, 1990. Milena Urbanska watches the husband she’s left make a puffed-up speech on TV accepting a poetry prize in the reunified Germany, heralding the “end of history.” Milena, forceful and self-centered, is the privileged daughter of the Vice-President of an unnamed and staunchly oppressive Eastern Bloc country. The book’s main action, splendidly paced, begins nine years earlier, in 1981, when Milena’s equally élite boyfriend, Misha, kills himself in a game of Russian roulette. A coverup of the circumstances doesn’t completely extinguish sex-and-drugs-and-conspiracy rumors about the participation of Misha’s friends, so Milena keeps her head down, taking a dull job translating maize-production reports. But she tempts fate by agreeing to attend a literary festival to translate for Jason Connor, a young Anglo-Irish poet.

Jason is attractive and carefree, even silly. Milena knows that his appeal derives “not merely from his easy charm but from his rarity value” in her non-cosmopolitan world. Still, she falls for him, and soon they are exploring an ancient church and having sex in her father’s bedroom, where she allows Jason to try on the Vice-President’s old military uniform but draws the line at letting him wear the medals that her father long ago won “for acts of suicidal courage against the Germans.”

A marriage plot ensues. After Jason returns home to England, Milena discovers that she’s pregnant, after a single sexual encounter with him; an abortion is performed at a spa for pampered Party wives. But Milena’s feelings for Jason persist, and she persuades her parents to let her go to London, from which, they believe, she will be proceeding not to a registry office but to a holiday in Cuba.

In “Iron Curtain,” Goldsworthy has constructed a sharply etched, more repressive variant of the Yugoslavia where she grew up. A reader will not find, here or in Goldsworthy’s other fiction, the wild and preternatural streaks that run through modern Serbian novels like Danilo Kiš’s “The Attic” (1962) or Borislav Pekić’s “The Houses of Belgrade” (1970); Téa Obreht, who was born in Belgrade and wrote “The Tiger’s Wife” (2011), brought some of that manner with her to America. Goldsworthy’s work, instead, remains on the track of the socially mimetic English novel, epitomized by George Eliot and Margaret Drabble.

Goldsworthy’s first book, “Inventing Ruritania: The Imperialism of the Imagination” (1998), was a scholarly, readable history of how successive generations of British writers documented and distorted life in the Balkans, from Byron—who made the southern Balkans the exoticized, alien setting of some of the second canto of “Childe Harold’s Pilgrimage"—to Evelyn Waugh and Olivia Manning, whose Balkan Trilogy depicts "a world clearly burning at the edges, with her English characters fleeing the flame." Goldsworthy reserves her highest literary admiration for Rebecca West's "Black Lamb and Grey Falcon" (1941), whose sense of the Balkan countries' essential "Europeanness" has become a consistent theme of Goldsworthy's own work. More often, British writers have appeared to make the region into a comic-operatic or deeply sinister place, the land of "The Prisoner of Zenda" and "Dracula," terrain in which passengers on the Orient Express should *expect* murder.

It is telling that "Inventing Ruritania" does not introduce the literature of Goldsworthy's native country to her adopted one. Rather, it is English books with which she engages, however wide of the mark they sometimes were.

Vesna Bjelogrlić was born in Belgrade in 1961, a "spoilt child of communism," she writes in her memoir, "Chernobyl Strawberries" (2005). Her father did secret work for the General Staff of the Yugoslav National Army, and her mother, with three telephones on her office desk, oversaw finances for Belgrade's City Transport Company. Vesna attended an élite French secondary school in the capital; a grant from France's cultural ministry took her to Paris for the first time. Throughout Yugoslavia's relatively prosperous nineteen-sixties and seventies, her "neighbourly, tightly controlled society" felt to her like "one of the safest places in Europe." It was not her generation, she emphasizes, but the generations of her parents and grandparents (including her tough and vivid Montenegrin grandmother) that experienced war and imprisonment and dispossession. Goldsworthy immigrated to England in 1986 after falling in love with a British man. When her future father-in-law told her, "You chose freedom," she decided that he "had obviously read too many novels by Solzhenitsyn."

Even so, Goldsworthy was "intense and openly ambitious." Well before departing for England, she had acquired "the very Western idea that my first responsibility is towards my own happiness," whether that was to come from love or from literature. She left home because, while studying Bulgarian during a summer in Sofia, she had met Simon Goldsworthy, a young man "as English as the running team in *Chariots of Fire*." In her forthright and often self-entertaining voice, she writes, "I believed in the supreme power of romantic love. That, comrades, is the real opium of the masses." She quickly assimilated to England, and the English language only increased her natural bluntness: "Like a fast new car, it takes wide swings around unfamiliar corners and leaves me vulnerable but exhilarated." The English-speaking Goldsworthy "is and isn't myself," she writes. "She takes risks and admits to loss."

During the nineteen-nineties, both before and after the West's belated intervention in the Bosnian conflict, Goldsworthy worked night shifts at the BBC's London offices, broadcasting, in Serbian, war news and features on Britain, to the Belgrade she'd grown up in. She experienced only from afar the bloody fission of Yugoslavia, a nation whose multiethnic patchwork had existed since the First World War, sustained by the grip of Marshal Josip Broz Tito, a strongman who operated with his own ideological wiggle room inside the Soviet sphere. In 1999, as NATO bombed Serbia and British forces were on the move in Kosovo, Goldsworthy worried simultaneously about her parents, who wouldn't go to air-raid shelters, and about the troops of her second country. "I don't want to see British soldiers dying. I am British too," she writes in her memoir. During the day, away from her job at the BBC, she researched "Inventing Ruritania," which kept her further connected to the region that she had once inhabited, even as the Balkans' orgy of self-destruction now made Westerners regard the area as "best left to fester in isolation" or as newly ripe for a kind of protectorate status.

In "Chernobyl Strawberries," Goldsworthy admits to a life of "spectacular political U-turns." In 1984, at the age of twenty-two, she stood in a stadium lip-synching one of her poems at a birthday celebration for Marshal Tito, who had died four years earlier. Three years later, she was leafletting for a Tory candidate in Hammersmith, and two decades after that, with less than full fervor, she was voting Green. None of these lurches are as important as her ability to see and describe herself making them. If not prone to nostalgia, she is devoted to memory. Her nonfiction is filled with sharp-eyed taxonomies of all the human subspecies and behaviors that she recalls from the land of her youth. "The Yugoslav poets of that era could be divided into two broad groups: the state-sponsored bunch and the outcasts. The first lot wore suits (and, if male, ties) and held responsible jobs in the media, publishing and arts administration," she writes. The outcasts had "badly cut hair," and, if they were reviewed at all, the notices "required a finely honed set of interpreting skills if one was to divine whether the author was on the way to jail or not." A generation later, she asks how the Yugoslav commissars could "metamorphose so easily into a bunch of cuddly grandpas with bad dental work? Even those who tortured and imprisoned, and pinned electrodes to grown men's balls, now wear checked slippers and send grandchildren to Western universities."

Goldsworthy's earliest poems, she admits, were top-heavy with literary reference. When she ventured into fiction, in her fifties, some of the same obeisance characterized her first two novels, as if she were permitted to proceed in this new genre only as a sort of prize student. Each of those books, however satisfying in their intricacy, depends on a famous novel by someone else.

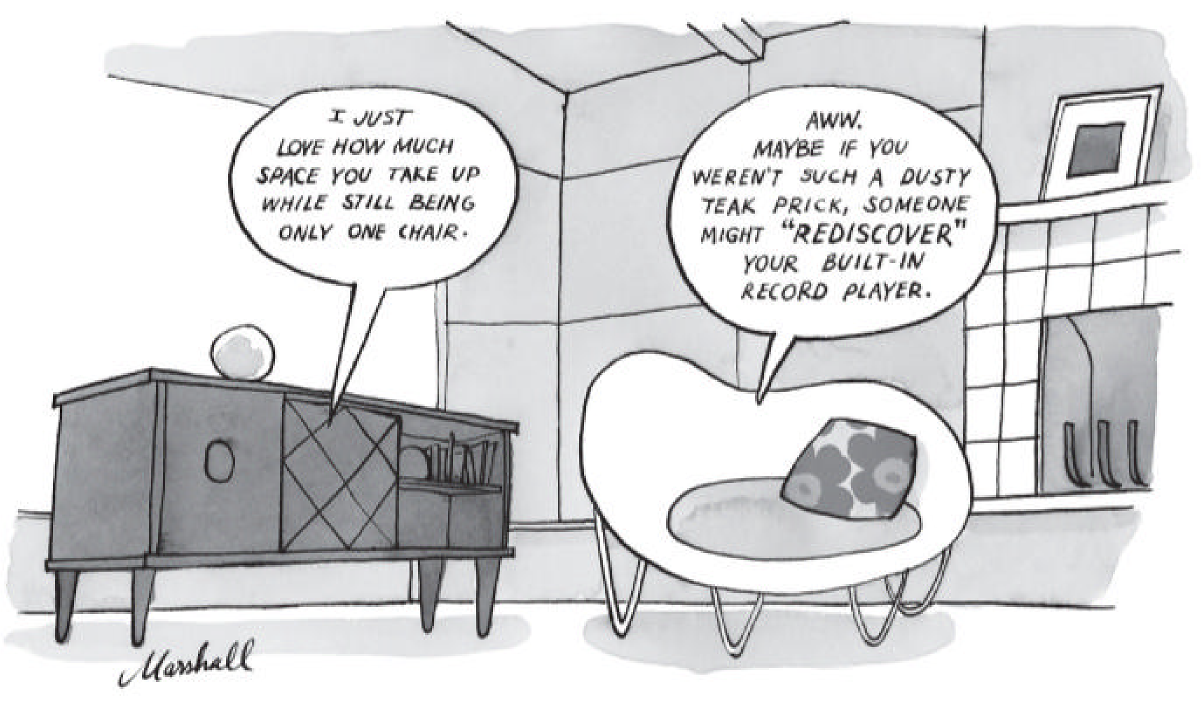
A lesser writer might have chosen merely to chronicle the further adventures of characters from "The Great Gatsby," but in "Gorsky" (2015), her first novel, Goldsworthy opted for analogue rather than extension. She built a pleasing contraption of a book in which elements of Fitzgerald's story are made to recur among plutocratic Russian émigrés in London after the fall of Communism. Roman Gorsky is the Gatsby figure, not a bootlegger but a fantastically wealthy arms dealer. He has never got over Natalia Volkov, the daughter of the mayor of Volgograd. She is now married to Tom Summerscale (i.e., Buchanan), a strapping British blowhard and a bully. Fitzgerald's mendacious Jordan Baker has become the "amoral" Gergana Pekarova, "a famous Bulgarian gymnast" who works as Natalia's personal trainer, and Nick Carraway obliquely reprises his narrative role as Nikola Kimović, a draft-evading refugee from "the war-torn Balkans" with an "ability to disengage from feeling" while serving Gorsky as a romantic go-between. West Egg and East Egg are now Fabergés.

The characters show an explicit awareness of the author's allegory. "I called him 'The Great Gorsky,'" Nick, who admits that Natalia's voice isn't actually "full of money," says. Plenty of off rhymes have been planted for the literary scavenger: Tom Summerscale addresses Nick as "Young Serb," the way Gatsby once called Carraway "old sport," and the London Eye appears to serve as Dr. T. J. Eckleburg's billboard.

The real accomplishment of "Gorsky" is Goldsworthy's charming and nimble descriptions: Nick notes that London's "handkerchief-sized lawns join up into one continuous floral ribbon," and wonders whether, at the school Natalia's daughter attends, "means-tested scholarships were on offer to the children of mere multi-millionaires." The book wants to be, and often is, more than a trick. It evokes not just literary precedents but layers of social history: in the London Docklands around the turn of the millennium, "amid the towering offices, warehouses that once stored spice and sugar from the colonies were now echoing minimalist apartments and shiny, antiseptic gyms." "Gorsky" desires to show large truths, such as how in Britain "the only thing you are not allowed to be is unhappy, particularly if you are an immigrant," but the newly arrived population that Goldsworthy has chosen to explore may be too rarefied, and too tasked with literary homage, to generate the deepest resonance.

Count Vronsky is said to be a hero to Roman Gorsky, no doubt because "Anna Karenina" has been a preoccupation of Vesna Goldsworthy. "Monsieur Ka" (2018), her second novel, concerns the son of the woman believed by many to have been the model for Tolstoy's heroine. The young man fled both tsarist and revolutionary Russia, taking the name Karenin—a resigned acceptance of destiny—and then Anglicizing it to Carr. By 1947, in Goldsworthy's telling, he is an elderly gentleman living in London and recovering from a stroke.

Carr's story is told by Albertine (Ber) Whitelaw, a young woman who herself is a veteran of name changes and migrations, from Strasbourg to Paris to Bucharest to Alexandria and, finally, to London. It was in Egypt, working at a British hospital, that she met her husband, Albie, an English man of "unbearable decency." Amid the bomb craters and the scarcities of postwar London, while Albie toils in Whitehall and travels on government business to Berlin, Ber finds work as a companion to Carr, who, during his convalescence, is consulting on the 1948 film adaptation of "Anna Karenina," which is being shot in Shepperton. The reader gets nicely executed glimpses of Vivien Leigh and Alexander Korda, and Goldsworthy's showing how the filmmakers play with moving the story from Russia to France becomes a neat joke about both the nature of moviemaking and the anything-can-happen aspects of exile.


I JUST LOVE HOW MUCH SPACE YOU TAKE UP WHILE STILL BEING ONLY ONE CHAIR.
AWW. MAYBE IF YOU WEREN'T SUCH A DUSTY TEAK PRICK, SOMEONE MIGHT "REDISCOVER" YOUR BUILT-IN RECORD PLAYER.
Marshall

MID-CENTURY ON THE ROCKS

Ber decides to write Carr's memoirs for him, and she begins an affair with his son, Alexei. Inevitably, there is a suicide under a train, though it is motivated by something other than an adulterer's despair—another sign, perhaps, of the author's own ambitions, a desire to free herself from literary antecedents and to find an autonomous world of plot and theme. Grim and finely detailed, "Monsieur Ka" is memorable in a muffled way, but it still conveys the feeling of a thwarted, or at least not entirely fulfilled, author. In both of Goldsworthy's first two novels, the narrators, even Ber, are preoccupied by the stories and the passions of others; they serve the protagonism of Gorsky and Carr, treating their own adventures and emotions as secondary, almost leftover. As a means of literary perspective, the method is hardly to be dismissed—without Carraway, there could be no "Gatsby"—but one doesn't want a novelist to write book after book in the mode of a character who isn't the reader's primary interest.

In "Iron Curtain," Goldsworthy at last allows her narrator to be a protagonist, and this time literary derivation is largely incidental. Milena Urbanska is unhappy entirely in her own way, and her voice has unshackled Goldsworthy from the classics. The broad outlines of Milena's life may have a few things in common with the author's, but Goldsworthy, having already written a memoir, can use only a robustly imagined deflection of her actual history as subject matter, thus also escaping the slow, self-driving hum of autofiction.

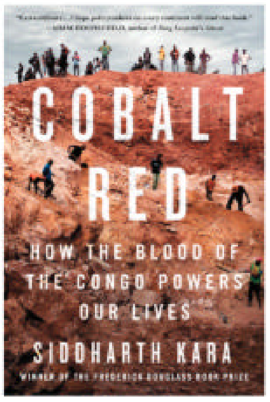
Once Milena reaches England, Jason's true awfulness begins to reveal itself, with wonderfully gradual plausibility. This anti-Thatcherite poet has found a way to follow "years on the dole" with academic grant money that will keep flowing so long as he stretches out the writing of a dissertation on Yeats. He's twenty-eight, and his boyish appeal is rushing past its sell-by date, even for his mother, who recognizes that her insouciant lily of the field is a sponge. Milena can see that his Marxism is no less "decorative" than his Irishness.

Milena gives birth to twins; soon after, unexpected success greets Jason's new book of poems. Signs of Jason's infidelity begin piling up from the moment Milena notices that he has used her maiden name on the dedication page. When a man from her own country's embassy, who has been tailing her in England, turns his camera on Jason, Milena comes to a realization, and makes a plan: "Whatever the distance, I could never escape my country. Since I could not escape it, I would use its might, however rusty, to punish my husband."

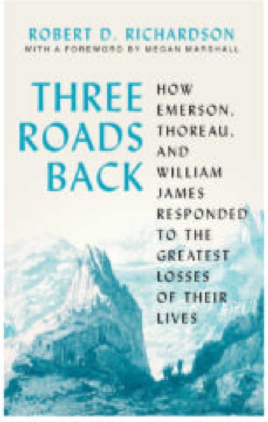
This wholly satisfying novel winds up being about personal, not political, disloyalty, but the character drama is thrown into high relief against all the First and Second World-building that the author carries out, with an aphoristic zest surpassing even the fine noticings of "Gorsky" and "Monsieur Ka." Communist travel agents, Milena recalls, were always "eager to show off their knowledge of the world, however theoretical it must have been." In the surveillance state, she says, "one way of soaking up excess labour . . . was to have every notionally working person shadowed by another working person." Her acquaintance with the U.K. gives her different opportunities for jaundiced precision. One of Britain's picturesque red telephone boxes contains "dozens of cards offering a menu of love in variants of broken English: a whole United Nations of prostitutes." That the word "quite" "could mean both 'to the utmost' and 'only moderately' seemed itself, well, quite English."

This book's tough, believable narrator-heroine owes each of her countries no more than ambivalence and nothing less than accuracy. Milena's voice, only briefly softened when she falls for Jason, becomes brittle again with complete believability. (As the speaker of "Departure Board," one of Goldsworthy's poems, puts it, "This re-setting of the heart to cold,/I am so good at that.") By casting aside the traces of literary dependence and making "Iron Curtain" fully Milena's story, Goldsworthy allows her protagonist to be what's at stake—fashioning, at last, her own very real Ruritania. ◆

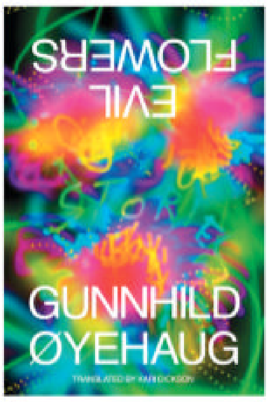
BRIEFLY NOTED



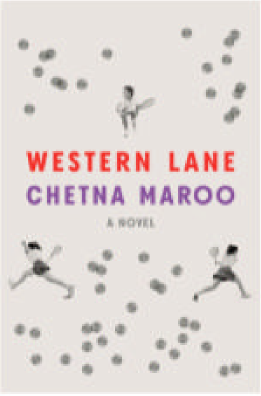
Cobalt Red, *by Siddharth Kara (St. Martin's).* Much of the world's cobalt—vital to the batteries that power cell phones, laptops, and much else—comes from the Democratic Republic of the Congo, mined in conditions that this intrepid exposé characterizes as "predation for profit," carried out at "minimum cost and maximum suffering." Kara draws from interviews with miners, some as young as ten, whose work puts them at risk of respiratory ailments and heavy-metal poisoning. Parents tell him of children lost when tunnels collapsed. His sympathetic, often enraging account is animated by the idea that the first step in ending such calamities is "advancing the ability of the Congolese people to conduct their own research and *safely* speak for themselves."


ROBERT D. RICHARDSON
WITH A FOREWORD BY MEGAN MARSHALL
THREE ROADS BACK
HOW EMERSON, THOREAU, AND WILLIAM JAMES RESPONDED TO THE GREATEST LOSSES OF THEIR LIVES

Three Roads Back, *by Robert D. Richardson (Princeton).* This posthumous treatise on grief, by a biographer of Emerson, Thoreau, and William James, takes these three thinkers as case studies, examining the formative role that loss played in their intellectual development. Using diaries and letters, Richardson details his subjects' experiences in the wake of loved ones' untimely deaths, and shows how each, debilitated by sorrow, sought solace and found liberation in nature's universalities and in the particularities of human experience. The result is an elegant and useful rumination on resilience as a practice, achievable through study, creation, companionship, and deep reflection. As Thoreau asked, "What right have I to grieve, who have not ceased to wonder?"



Evil Flowers, *by Gunnhild Øyehaug, translated from the Norwegian by Kari Dickson (Farrar, Straus & Giroux).* Seemingly mundane occurrences grow increasingly surreal in these razor-sharp stories, none longer than a few pages. An ornithologist dispels the part of her brain that recognizes birds; a visitor to a Tripadvisor forum dedicated to Virginia Woolf's country house strikes up two Internet friendships; an institution is branded the "Mational Nuseum." Øyehaug's dizzyingly inventive fictions are suffused with uncanny observations about the natural world and a pervasive, tongue-in-cheek intertextuality. The title is a Baudelaire reference, and, just before the reader encounters a photograph of the poet's scowling visage, the narrator imagines him having a prophetic glimpse of her book and thinking, "Evil flowers, my ass."



Western Lane, *by Chetna Maroo (Farrar, Straus & Giroux).* When three adolescent sisters in an Indian immigrant family in England lose their mother unexpectedly, in this début novel, their father, unable to process his grief, hopes that playing squash will provide his daughters with structure. "What he saw was the days stretching ahead of him without Ma, with us," Gopi, the youngest, and the most talented player, observes. "All I could do was serve and volley or disappoint him." The family is isolated, but a tournament provides a means for Gopi to connect with her father and transcend limitations. "A clean hit can stop time," Gopi says. "Sometimes it can feel like the only peace there is."

ON TELEVISION

THE AFTER-PARTY

The return of "Party Down," on Starz.

BY INKOO KANG

By the time the cult sitcom "Party Down" began airing on Starz in 2009, after a six-year search for a network home, it had become a Great Recession comedy. Set at a different gathering or celebration each week, the show followed Los Angeles's worst catering crew—a ragbag of struggling actors, writers, and comedians glued to their flip phones, who approach basic hospitality like an exotic custom. Naturally, their clients are even less sympathetic. In the second episode of the series, the servers attend to a group of college Republicans. With then Governor Arnold Schwarzenegger playing the part of Godot, the workers are forced to make chitchat with the conservatives while they wait for the guest of honor to arrive. Henry (Adam Scott), a bartender whose brief stint as the star of a ubiquitous beer commercial effectively killed his former acting career, rolls his eyes at the overconfident twerps preaching hard work and perseverance. But the students find an acolyte in Henry's dopey boss, Ron (Ken Marino), who dreams not of fame or fortune but of rise-and-grinding his way to managing a franchise of a soup-centric chain restaurant. With the exception of Henry, each member of the Party Down waitstaff is hopeful (or delusional) enough to think that meritocracy will work out in their favor. But only Ron is naïve enough to believe in capitalism.

The series is unafraid to grapple with financial precarity and middle-age failure.

Despite its cancellation after two under-watched seasons, "Party Down" had something of a Midas touch. The pioneering series launched the careers of Scott and of Lizzy Caplan (who played Casey, Henry's sardonic love interest), while anticipating the subgenre of the "sad-com" and the wave of glum, insidery Hollywood satires, such as "BoJack Horseman," "Barry," and "The Other Two." Created by Rob Thomas (also the creator of "Veronica Mars"), John Enbom, Dan Etheridge, and Paul Rudd, "Party Down" universalized the plight of the wannabe: At what point does a dream curdle into self-deception? And when does practicality harden into calcification?

But, for all the show's cultural influence, a revival, set a decade after the original run, wasn't an intuitive pitch—even in our era of relentless I.P. extension. The feel-good vibes inherent in a comedy reunion—recall all those gatherings of TV casts past, especially during the early months of the pandemic—clank against "Party Down"'s pessimism and acerbity. The third season, which premièred last week, victoriously defies the usual results of such comebacks: dissipated cast chemistry, pointless new story lines, once prescient characters who seem too rooted in another time to transplant to the current moment.

I'll admit it: I wanted "Party Down" to make me feel bad. Since the show's first two seasons, it has become harder to sustain the illusion that either Hollywood or the economy at large doles out its shrinking perks fairly. I wanted to catch up with how this batch of characters, who have always had to lie to themselves about their chances of success, grapple with their crushingly ordinary fates. The revival does not disappoint, setting a new standard for series resurrections by being unafraid to tackle the low-grade dismay of financial precarity and middle-age failure. The show's emotional center (and economic barometer) is still Henry, who in his early thirties found himself torn between the riskiness of his true passions and the solidity of suburban comforts. He begins Season 3 as a married fortysomething English teacher, with Casey, now a comedy star, just another

ILLUSTRATION BY AJ DUNGO

celebrity he watches on TV. (Caplan does not appear in the first five episodes of the six-part revival.) But middle age is when stability starts disintegrating under one's feet. In a reflection of the intensified economic gloom in the past decade, the duelling impulses that once defined Henry are moot, perhaps even quaint, now that many formerly middle-class professions, such as teaching, require moonlighting to pay the bills. Before long, Henry is back in one of Party Down's pink satin bow ties—the equivalent of the universe sticking a "Kick Me" sign on his back.

Henry's not the only one returning to a job that he supposedly left behind years ago. Kyle (Ryan Hansen), a cheesily handsome, empty-headed actor, also returns to Party Down, after his almost-career as a cinematic superhero gets derailed by a problematic video of him that surfaces online. Back at work passing out appetizers, he squabbles with Roman (Martin Starr), his old foe, a sci-fi screenwriter with the style, and soul, of a drowned rat. (Bitter that he has never stopped waitering, Roman voices a thought that's probably crossed the mind of every Hollywood striver with a more successful rival: "You make it big in this cultural void, it only proves that you suck on some level.") Meanwhile, Ron, maniacally optimistic as ever, purchases Party Down from its corporate owners using all the money he has and, when that's not enough, a loan from loopy Constance (Jane Lynch), a former employee. He's thrilled to finally be his own boss, only for the pandemic to hit just as he is closing the deal.

It's unclear how Party Down could land any gigs at all; one imagines its Yelp reviews to be a fire hose of profane rants. At their best, the staffers are inattentive and intrusive; more often, they're agents of entropy—anything and everything that could go wrong inevitably does. Ron, who has lost his sense of smell after multiple COVID infections and exudes a corresponding body odor, showers at the home of an A-list client (James Marsden) and his producer girlfriend (Jennifer Garner) while working a birthday party. He's caught by one of his recent recruits, the aspiring influencer Sackson (Tyrel Jackson Williams). Uniquely entrepreneurial among his team, Sackson is no more committed than the others to handing out hors d'œuvres. But the dance videos he films—often at work—draw the contempt of the aging actors in the crew, who can feel the culture gravitating in directions they don't understand. The clout-chasing Sackson is an excellent update to the cast, as is the avant-garde chef Lucy (Zoë Chao), who serves as a delicious vehicle for foodie parody, a satirical fount untapped by the original seasons. A designer of dishes like "ambient cod fog" and Camembert-flavored birthday-cake bites that spark a "rumination on mortality," Lucy considers the external approval that her co-workers seek, whether from casting agents or social-media views, to be "bourgeois bullshit." She's determined to feed only her soul—an ethos that has got her fired from every other job she's had.

Despite its gifted, well-jelled cast and its hefty genre innovations, "Party Down" has never fit comfortably in the prestige mold—it has always been too crude for that. (Reportedly, Starz execs initially pushed Enbom, the showrunner, for more female nudity—but "not sad breasts.") Where there's food, there will be food poisoning, and one incident—involving Ron and some gnarly sea urchin—gives Marino an opportunity to display his knack for frantically flopping about like a fish just yanked from water. But this gross-out humor always sat awkwardly alongside the show's more sober-minded themes, and that tonal contrast is exacerbated in the revival, as the series has grown heavier with the characters' regrets. Lydia (Megan Mullally), once a guileless server, who is now a savvy momager, has some wonderfully dramatic moments, as she allows herself to contemplate the darker side of child stardom. An episode that draws parallels between the viral needs of modern activism and the vagaries of the entertainment industry takes aim at today's squabbling political factions. But the character beats are disrupted by the series' now creaky commitment to broader gags. It's a letdown, and a long-winded one at that, when the show follows up its most piercing episode with an improbable group psychedelic trip in the middle of a catering job. Bring on another tray of ruminations. ♦

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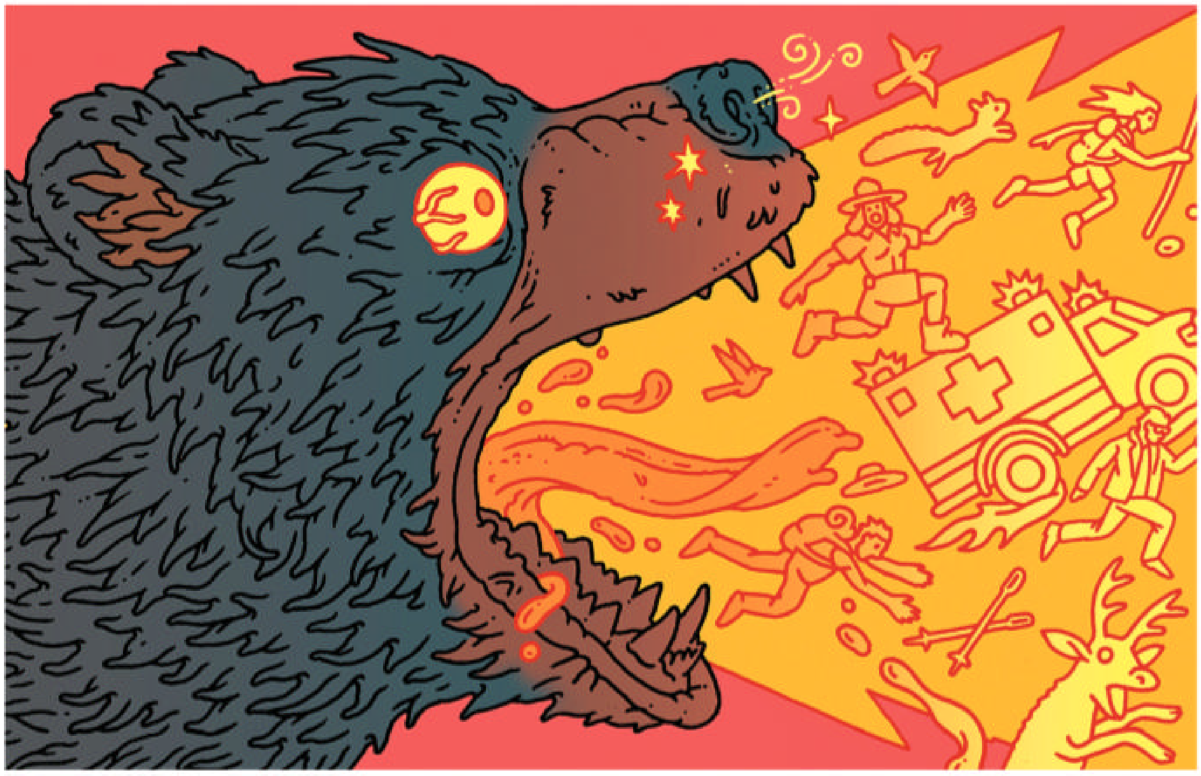
THE CURRENT CINEMA

MAKING TRACKS

"Cocaine Bear" and "The Quiet Girl."

BY ANTHONY LANE

Darkness falls. Out in the woods, under the pelting of a pitiless storm, a middle-aged American male, stripped to the waist, fights a furious bear. This elemental sequence comes from a 1977 film, scarily titled "Day of the Animals," and the joy of it is that the battling man is played by Leslie Nielsen, and that the movie is not—repeat, not—intended as a comedy. What, you may ask, could top that?



Drugs discarded in a national forest create havoc in Elizabeth Banks's film.

One answer is "Cocaine Bear," a new film written by Jimmy Warden and directed by Elizabeth Banks. Allegedly, it's based on true events, in much the same way that "Pinocchio" is based on string theory. Our story begins with duffelbags of cocaine being tossed out of a plane over the Chattahoochee National Forest, in 1985. The bags belong to a drug dealer, Syd (Ray Liotta), and he wants them safely gathered in. To that end, his son, Eddie (Alden Ehrenreich), and a henchman, Daveed (O'Shea Jackson, Jr.), are dispatched to the great green wilds of Georgia. Also in attendance, and innocent of any crime, is a nurse named Sari (Keri Russell). She, too, is desperately seeking what is lost—her thirteen-year-old daughter, Deirdre, or Dee Dee (Brooklynn Prince), who has skipped school and gone hiking with her friend Henry (Christian Convery). Law enforcement is represented by a cop from out of state, Bob (Isiah Whitlock, Jr.), and a local ranger, Liz (Margo Martindale). The animal kingdom is represented by a butterfly, a deer, and a black bear. Only one of these is on cocaine, although with butterflies you can never really tell.

As with "So I Married an Axe Murderer" (1993) and "We Bought a Zoo" (2011), "Cocaine Bear" is explained by its title. If Banks is treating us to an allegory or a political parable, wagging her finger at our ecological sins, I must have missed it. From what I saw, she has simply made a film about a bear that does coke: eats it, snorts it, hunts it, sneezes it, and, at one rapturous moment, *showers* in it. (Is this a winking reference to "Little April Shower," the daintiest scene in "Bambi"?) It's as if Quentin Tarantino kicked off his career, in the early nineteen-nineties, with a tale of some dogs who visit an actual reservoir.

The trouble with high-concept films, though, is not the concept but the height. We laugh when we first hear about them, and we relish the buzz of the trailers; given that level of anticipation, it's no surprise when the movies themselves take a tumble. Such was the case with "Snakes on a Plane" (2006), and it's my forlorn duty to report that "Cocaine Bear" follows suit. Why does the whole cast, including the kids, swear so freely and so loudly ("We're *fucked*," Henry cries), if not to advertise the amazingness of the main plot? The violence, likewise, is far nastier than it needs to be, with cameos from severed limbs and an actress suffering the indignity of being dragged along a road, her face bumping and scraping in closeup. The excess, however gleeful, is that of a film paying anxious tribute to itself. Look, it seems to shout, here's an apex predator becoming a homicidal junkie! What did you expect?

Now and then, the volume is turned down. The most believable interaction is not between man and beast but between mother and daughter—Sari and Dee Dee, early on, at home. Brooklynn Prince was terrific as an impish six-year-old in "The Florida Project" (2017), so why, as Dee Dee, is she allowed to drop out of the narrative for so long? Banks, always a sympathetic presence onscreen, doesn't appear here, in her own film, but I can't help wishing she did; the calm decency that she radiated in "Love & Mercy" (2014) might have helped to settle this movie's nerves. Instead, "Cocaine Bear" has a peculiar jostling quality, as the various characters shuffle onto center stage and then get elbowed aside to make way for the next contender.

We are left with an awkward question: for whom, exactly, are we supposed to root? For the bear, I guess, except that C.G.I., despite its wondrous re-creation of flesh and fur, is less adept at pixelating a personality, and there is little here to match the appeal of Baloo, in "The Jungle Book" (1967), who consumed nothing more potent than prickly pear and pawpaw. Cocaine, to be honest, feels like a very bare necessity. Still, there will be audiences who cackle like witches at this stuff, especially at midnight showings (if those jamborees still exist, in the age of streaming), and it may be that Banks

ILLUSTRATION BY ERIC NYQUIST

will be lured back for sequels, with different stars and different mashups of addictive substances and untamed mammals. Get ready for "Fentanyl Hyena," "Meth Bobcat," and the uncompromising "Skunk Skunk." The possibilities, I regret to say, are endless.

Were you to sit down and watch all five movies that are thrashing it out for Best International Feature Film at this year's Academy Awards, what a curious binge it would be. You could start with "Argentina, 1985," which, despite relying on the well-worn custom of the courtroom finale, has a refreshing lack of stridency. Next up would be "Close" and "EO"—the first being a saddening saga of two Belgian boys, and the second a form of pilgrimage. (The pilgrim in question is a donkey, and what he undergoes is not easy to bear, yet to follow in his hoofsteps is, I'd say, a transcendent privilege.) Taking a deep breath and a large whiskey, you could brave "All Quiet on the Western Front," which, though only fitfully gripping, leaves you, in the harshest sense, entrenched. Finally, you could recover with "The Quiet Girl," which, with Oscar night just around the bend, is the last of the contenders to be released.

Written and directed by Colm Bairéad, "The Quiet Girl" is set in Ireland in the early nineteen-eighties, though there are stretches of action, or sullen inaction, that could be unfolding ten or twenty years earlier. Also, the heroine, Cáit (Catherine Clinch), who is nine years old, with ghost-pale features and dark hair down to her waist, has a faintly abstracted air. It's as if she were puzzled by her place in the modern world—shades of the dreamy kids in "Close."

Cáit lives in a house of dismal gray, together with her parents, her brother, and her three sisters. (One oddity of the tale is how utterly devoid of sibling affection it is.) She speaks English to her father (Michael Patric), a grouch of unsavory habits ("I had a liquid supper"), and Irish to her mother (Kate Nic Chonaonaigh), who is pregnant with her sixth child and barely able to cope. The family needs to shed some excess baggage, and Cáit is the one to be tossed out—taken to spend the summer with distant relatives, on a farm.

How many stories have we seen, or read, that revolve around the exile of a child? "James and the Giant Peach" plunges its freshly orphaned hero into an aunt-infested nightmare; "The Secret Garden" passes through infirmity and resentment to reach a pastoral peace; and even "Heidi"—which we see Cáit reading, in "The Quiet Girl"—is more troubled than its reputation suggests. (So chronic is Heidi's yearning for the mountains that she sleepwalks.) The home to which Cáit is sent, in contrast, seems like a genuine haven: a farmhouse owned by Seán (Andrew Bennett) and his wife, Eibhlín (Carrie Crowley), who takes one look at the new arrival, with her unwashed limbs, and runs her a hot bath. An unprecedented treat, one suspects, judging by the caution with which Cáit dips her toes in the water.

It's a poised performance by Crowley, who lets us feel both the coolly guarded restraint in Eibhlín's manner and the instinctive warmth with which she welcomes Cáit—wishing not only to care for her during the summer but also, by the illogic of love, to have done so sooner. "I don't know why I didn't think of taking you in before now," she says. Is there a tinge of desperation in those words, kindly as they are? What else might Eibhlín have neglected to do? Finely framed by the cinematographer Kate McCullough, "The Quiet Girl" is an idyll, yet its placid surface is puckered by anxiety. Near the farm is a well, so clear and so still, like a magical source in a legend, that you can drink from it. Anyone who's seen "Don't Look Now" (1973), however, will think of children slipping into pools and ponds. Legends can be bitter to the taste.

Here and there, the movie overplays its hand. "If there are secrets in a house, there is shame in that house," Eibhlín declares to Cáit, sounding like someone who recently escaped from an Ibsen production. Evidently, misfortune befell the place before Cáit came; among the clues, in the bedroom where she sleeps, are the clothes in the wardrobe and the wallpaper festooned with trains. The real surprise is that, in the course of the narrative, the elegant Eibhlín recedes into the shadows, as if everything were simply too much for her, while Seán, her gruff husband, is the one who draws their young visitor under his wing. As he points out, Cáit "says as much as she needs to say." The camera constantly takes its cue from her darting gaze; the fact that she notices so much, and talks so little, is, for Seán, a virtue that he understands and shares. In the movie's loveliest touch, he silently leaves a cookie for Cáit on the edge of a table. He could be putting food out for the birds. ♦

NEWYORKER.COM
Richard Brody blogs about movies.

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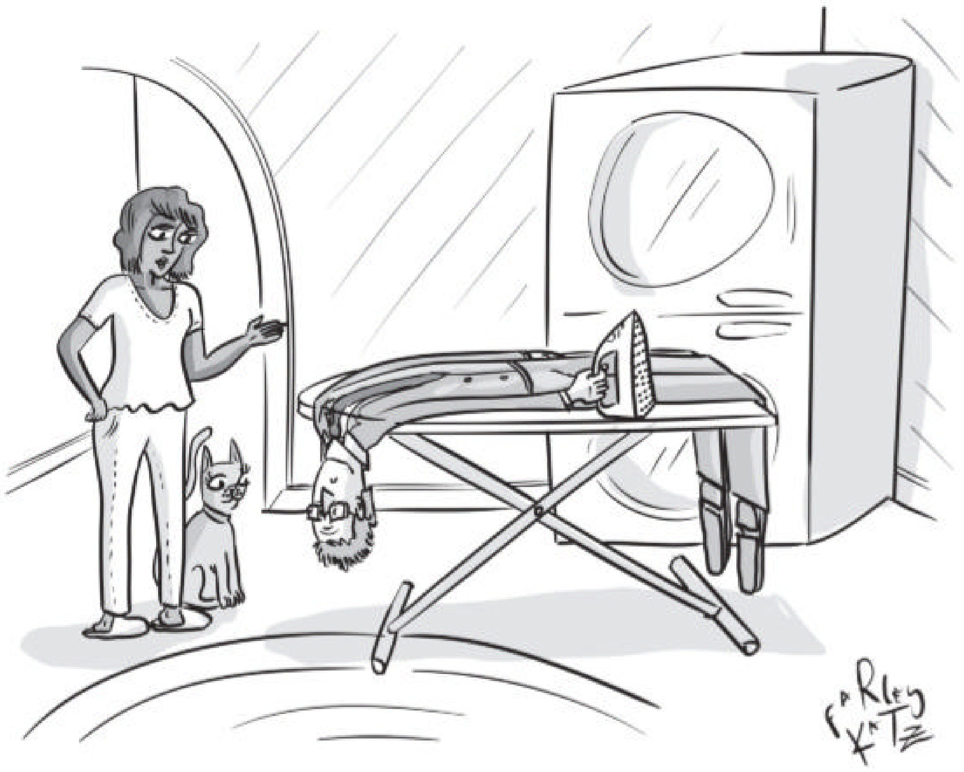
CARTOON CAPTION CONTEST

Each week, we provide a cartoon in need of a caption. You, the reader, submit a caption, we choose three finalists, and you vote for your favorite. Caption submissions for this week's cartoon, by Farley Katz, must be received by Sunday, March 5th. The finalists in the February 13th & 20th contest appear below. We will announce the winner, and the finalists in this week's contest, in the March 20th issue. Anyone age thirteen or older can enter or vote. To do so, and to read the complete rules, visit contest.newyorker.com.

THIS WEEK'S CONTEST



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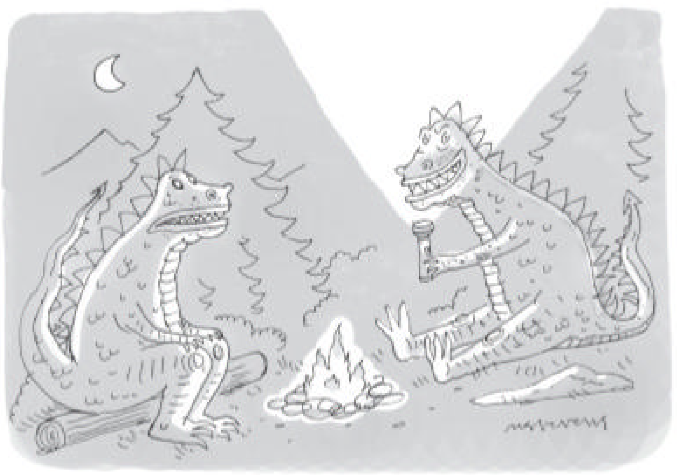
THE FINALISTS

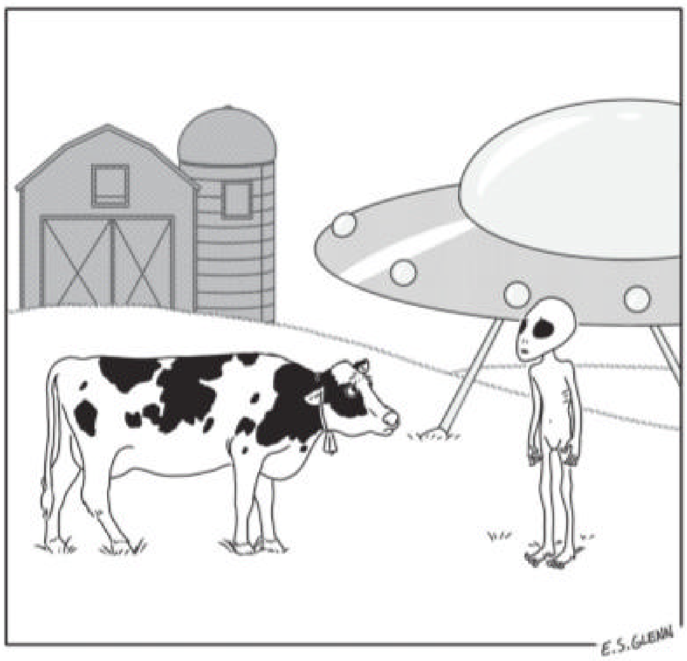


“I dunno—this is what those campers were doing before we ate them.”
Doug Kolic, Toronto, Ont.

“So the meteor gets closer, and closer.”
James Krebs, Rhinebeck, N.Y.

“. . . and they'll use our liquefied bones to fuel midsize sedans.”
Chris Condren, Brooklyn, N.Y.

THE WINNING CAPTION



“And then they drink it?”
Colin Guthrie, Ottawa, Ont.

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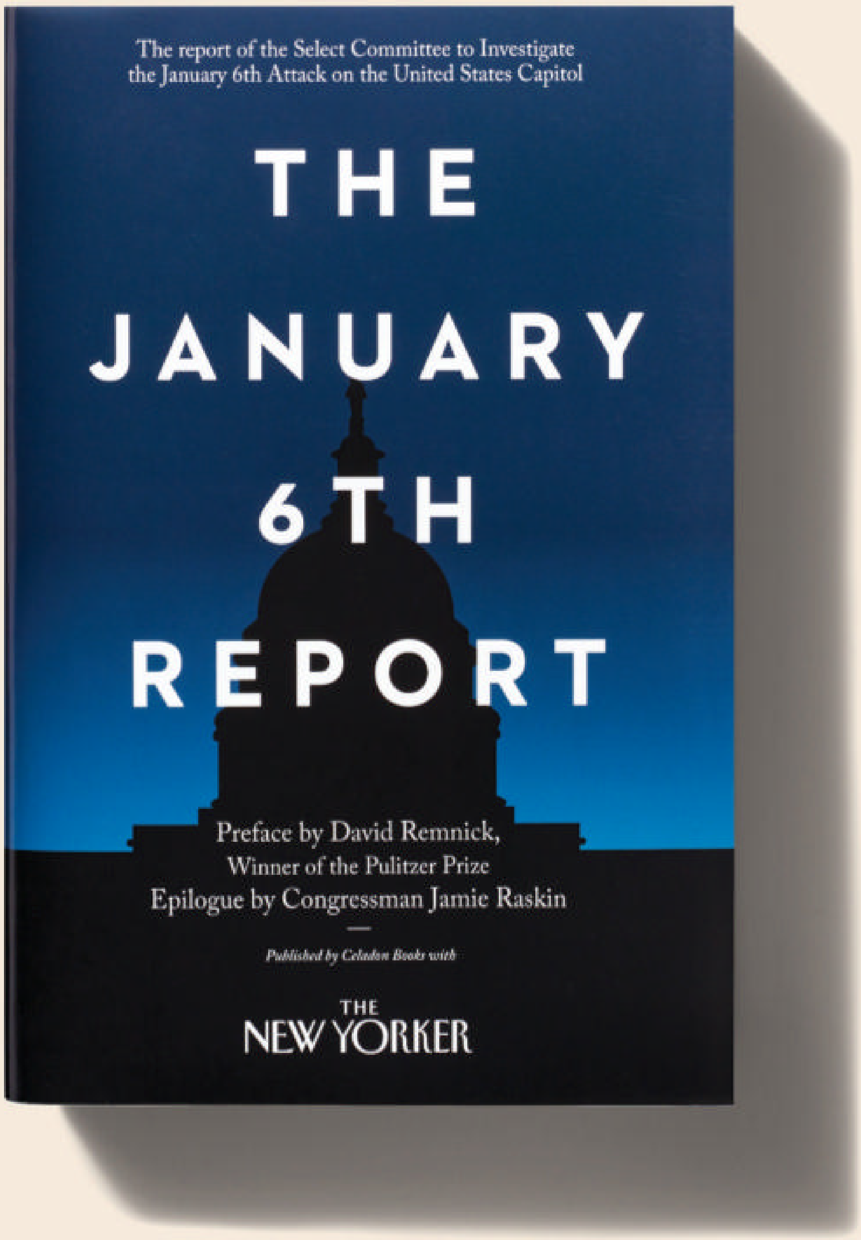
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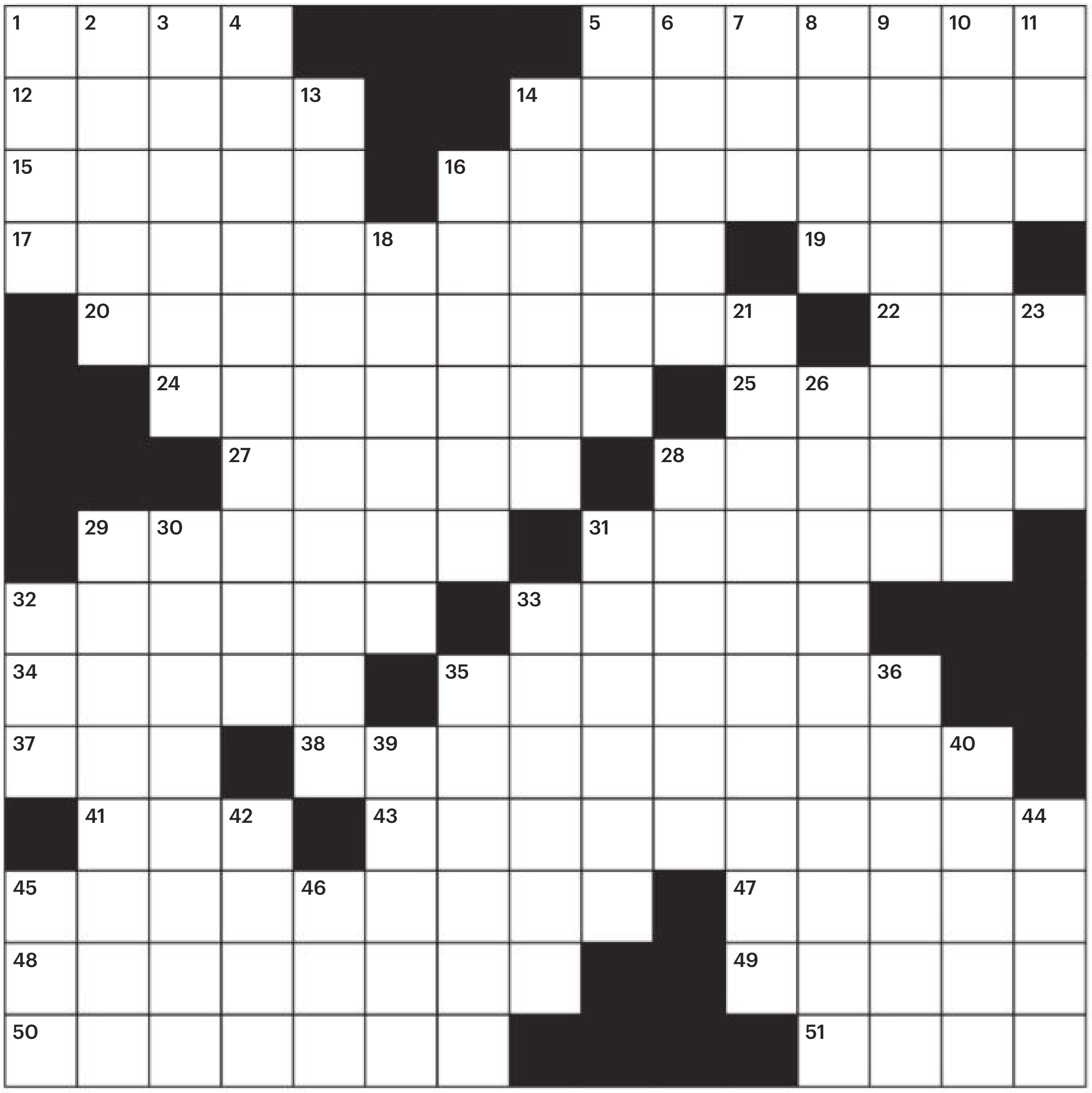
THE CROSSWORD

A moderately challenging puzzle.

BY ERIK AGARD



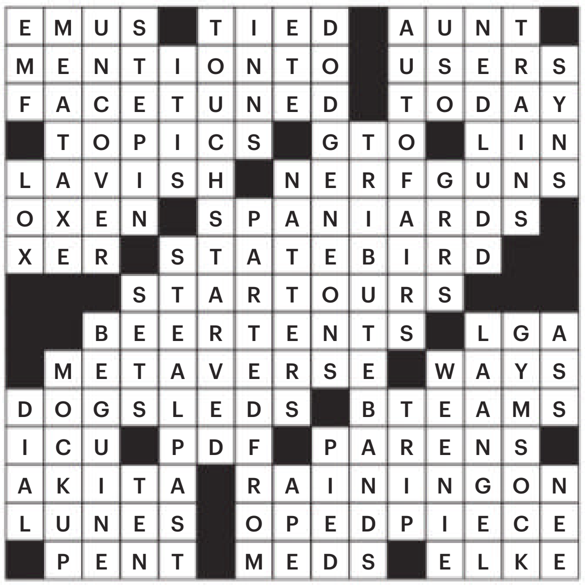
ACROSS

1 Abbr. in job titles
5 Deli orders in bowls
12 ___ out (distributes)
14 Bay Area city
15 Ballet-inspired workout
16 Holding no water
17 Creator of TransLash Media
19 ___ Kwon Do
20 List of house rules
22 Put down
24 ___ doors (car doors that open up instead of out)
25 Do taxes paperlessly
27 Dork
28 Heads out, or parts of some heads
29 Extremely beautiful man
31 Not purchased
32 Queen Ramonda, to Killmonger
33 "10 Things I Hate About You" star Ledger
34 Person from the Beehive State
35 Dorks
37 Fooled
38 Part of a grill to clean out
41 Name that's also an Australian airport code
43 Detractor's activity
45 Subwoofers accentuate them
47 Wafer-cookie brand
48 Reached
49 Like the flavor of chipotles
50 Settled snugly
51 Sections of a history museum

DOWN

1 Prefix meaning "both"
2 Stitched lines
3 Game tactics, for short
4 Robe material
5 ___ high (athlete's personal best)
6 Flavor in absinthe
7 Ambulance pro
8 "A ___ with a Deadly Pepa" (1988 album)
9 Totally dominated
10 Closed back up
11 "Help!"
13 Form of online trolling named for a pinniped
14 Portuguese honorific
16 Plants sometimes confused with lichens
18 ___ and James (villainous duo in "Pokémon")
21 Two-thousands superhero show with a theme song performed by Puffy AmiYumi
23 "That's right"
26 Man of the hour?
28 More economical
29 Switch to a hands-off approach?
30 Identity-verification tools
31 Brand that makes half-pound cups
32 Sardonyx is one of its birthstones: Abbr.
33 Seriously mad
35 Removed gradually
36 One paid for shipping?
39 River that flows through Cologne
40 Dance from Central Europe
42 What very few are able to pull a one-eighty on?
44 Count against?
45 Extreme penalty
46 ___ Murda (J. Alphonse Nicholson's character on "P-Valley")

Solution to the previous puzzle:



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L	A	V	I	S	H	■	N	E	R	F	G	U	N	S
O	X	E	N	■	S	P	A	N	I	A	R	D	S	■
X	E	R	■	S	T	A	T	E	B	I	R	D	■	■
■	■	■	S	T	A	R	T	O	U	R	S	■	■	■
■	■	B	E	E	R	T	E	N	T	S	■	L	G	A
■	M	E	T	A	V	E	R	S	E	■	W	A	Y	S
D	O	G	S	L	E	D	S	■	B	T	E	A	M	S
I	C	U	■	P	D	F	■	P	A	R	E	N	S	■
A	K	I	T	A	■	R	A	I	N	I	N	G	O	N
L	U	N	E	S	■	O	P	E	D	P	I	E	C	E
■	P	E	N	T	■	M	E	D	S	■	E	L	K	E

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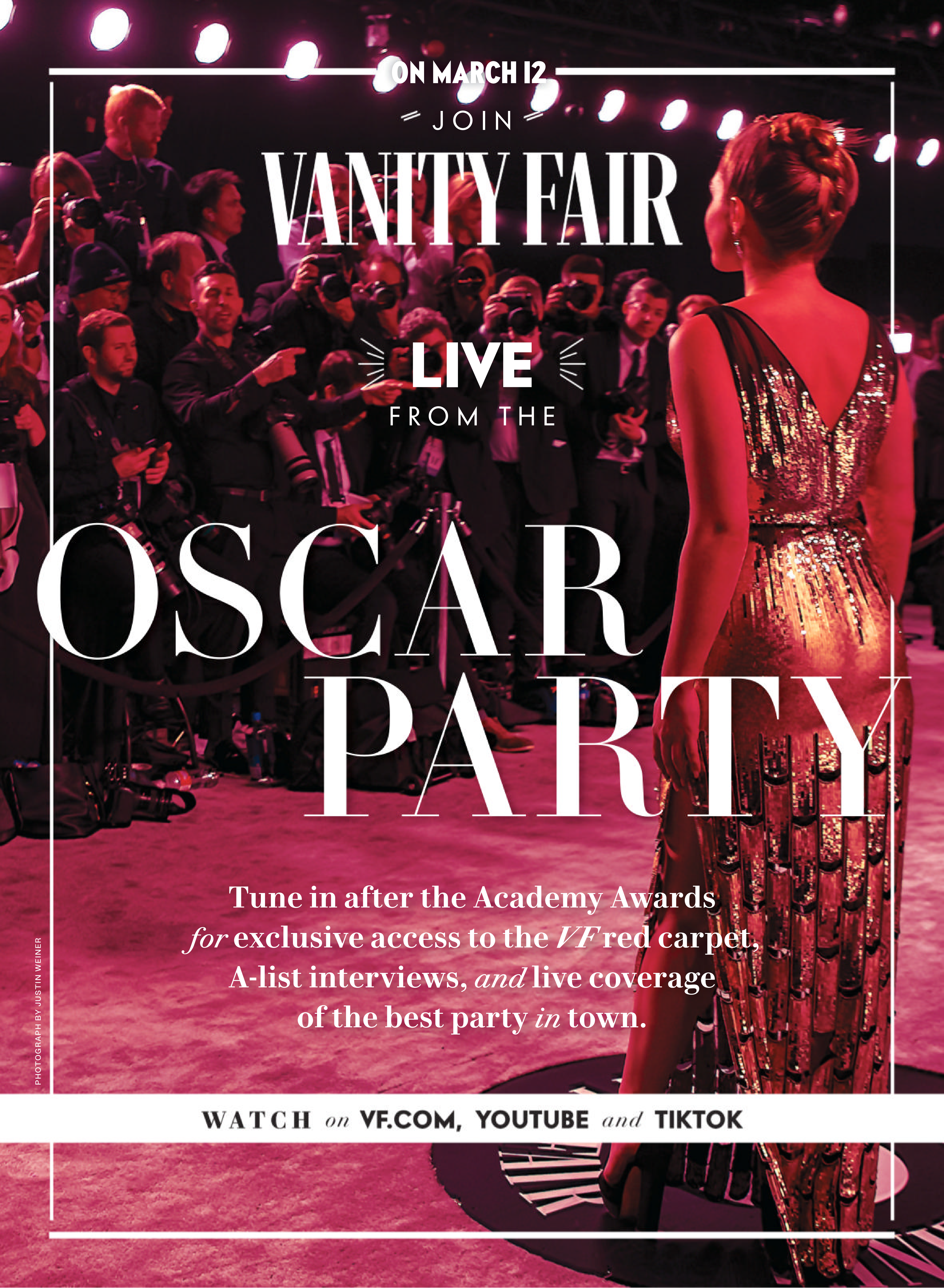

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